

Digital Transformation of FMCG Supply Chain
Operations and Payments in Bangladesh

Challenges, Opportunities and Way Forward



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February 2021

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This is a comprehensive research on the business case on adoption of digital solution in the Fast Moving Consumer Goods (FMCG) supply chain operations and payments in Bangladesh. Through developing business case on different FMCG categories (focusing on household goods, personal care, regional market, and MNCs) and triangulating insights from key informants representing the respective stakeholders in the FMCG supply chain and payments ecosystem, this research assessed the context, preparedness, emerging trends and challenges; opportunities for FMCG companies and financial service providers; and investment requirements. A step by step strategic roadmap for each category of FMCG companies in undertaking digitization of their supply chain operations and payments have been presented.

Through this report, the United Nation Capital Development Fund (UNCDF) hopes to support businesses, policy makers, financial service providers, regulator, and development partners to take greater interest and action on their behalf. The results and recommendations from this research contributes to the body of knowledge about FMCG companies, micro merchants and digital financial services with UNCDF's objective of stimulating investment, business innovations and regulatory reform to expand economic participation and opportunities for women, small and growing businesses, and digitization.

This research was made possible through UNCDF's "Merchants Development Driving Rural Markets" project funded by the European Union under the Poverty Reduction through Inclusive and Sustainable Markets (PRISM) action. UNCDF commissioned Innovision Consulting Private Limited to undertake the study. Innovision Consulting Private Limited developed a research methodology, executed the data collection in the field, compiled and validated the findings into a report and arranged for its dissemination in collaboration with UNDCF.

ACRONYMS

AMC	Annual Maintenance Contract
ASM	Area Sales Manager
ATM	Automated Teller Machine
BB	Bangladesh Bank
BCG	Boston Consulting Group
BTS	Base Transceiver Station
CAPEX	Capital Expenditure
COVID	Coronavirus Disease
CRM	Customer Relationship Management
DFS	Digital Financial Services
DH	Department Head
DMS	Distribution Management System
DO	Delivery Man
DR	Delivery Representative
EFT	Electronic Fund Transfer
ERP	Enterprise Resource Planning
FGD	Focus Group Discussion
FMCG	Fast-moving Consumer Goods
FSP	Financial Service Providers
HQ	Headquarters
HR	Human Resource
ICT	Information and Communications Technology
IDI	In-depth Interview
IT	Information Technology
KYC	Know Your Client
MAC	Middle and Affluent Class
MFI	Microfinance Institutions
MFS	Mobile Financial Services
MNC	Multinational Corporation

MNO	Mobile Network Operators
NBFI	Non-bank Financial Institution
NBR	National Board of Revenue
NDA	Non-disclosure agreement
OPEX	Operating Expense
PC	Personal Computer
PO	Purchase Order
PSO	Payment System Operators
PSP	Payment Service Providers
RAM	Random-Access Memory
RCM	Retail Channel Management
ROI	Return on Investment
RSM	Regional Sales Manager
SFA	Sales Force Automation
SKU	Stock Keeping Unit
SMS	Short Message Service
SR	Sales Representative
TCV	Time, Cost and Number of Visits
UNCDF	United Nations Capital Development Fund
WES	Workflow Execution System
WMS	Warehouse Management System



EXECUTIVE SUMMARY

Bangladesh's Fast Moving Consumer Goods (FMCG) sector is a \$18.42 billion annual turnover industry (Klincic & Aligishiev 2018). There are an estimated 1.3 million retail micro-merchants in the FMCG market in Bangladesh, situated across both urban centers and remote rural areas.

These “mudir dokans” (small retail stores termed in Bengali) have already started to demonstrate high potential to fuel growth for diverse digital financial services; merchants engage in over 100 million financial transactions per day. Boston Consulting Group (BCG) estimates that if the current trend of economic growth is retained, around 34 million people will belong to Bangladesh's Middle and Affluent Class (MAC) by 2025. In this context, Bangladesh's FMCG sector is poised to become the next booming sector in the country, demonstrating high potential for entrepreneurship and employment opportunities .

Based on findings from the landscape assessment of the retail micro merchants in Bangladesh in 2017, UNCDF concluded that digitization of stock ordering process and inventory management will enable FMCG companies and distributors to efficiently manage their distribution network and generate real-time data-driven forecast for future demand, whereas the merchants will be more capable of evaluating stock-outs, which is currently done in manual process. It also concluded that digitization of supply chain transactions and payments will enable the value chain actors better manage their cash flow and finances across all layers of the supply chain. Digitization of payments will facilitate access to a wide range of digital financial services for the previously unserved or underserved retail merchants including access to digital credit, insurance and other products and services through generating bankable data. However, the study also revealed lack of evidence that shows the business case for digitization of FMCG supply chain and payment system. This research was commissioned to address the gap in evidence so that UNCDF could launch interventions to attract investments from the relevant market actors in FMCG supply chain and payment system digitization process.

The formative research which was undertaken on selected FMCG companies in Bangladesh through in-depth interviews and FGDs with C-suite staffs and supply chain experts of the respective companies show that **estimated investment of BDT 3.49 million in digital infrastructure development and annual recurring cost of BDT 0.88 million on digital supply chain management**

solutions will help an FMCG company (100 staffs in the sales team) to save the equivalent of BDT 8.45 million++ incurred in process and time inefficiency. This means that it should ideally take less than six months to get the return on investment made for the fixed investment on digital infrastructure. This level of savings is equivalent to cumulative salary of 42 Sales Representatives in the current average market rate.

**BDT 3.49
MILLION**

is required for digital infrastructure development to develop a holistic solution.



The solution would save equivalent of BDT

8.45 ++

million incurred in process and time efficiency



BDT

3,046,125

per annum is the estimated human resource engagement cost in overall reporting.



Besides, estimated monetary value of process inefficiency for a 100-member distribution sales team due to field sales staff's early leaving from the market is around BDT 3,837,750 per annum, and the estimated cost of human resource engagement in overall reporting is around BDT 3,046,125 per annum, which can be saved through adoption of digital supply chain management platforms.

To realize these benefits, an FMCG company standing at ground zero with no automation should plan for 3-5 years of phase-by-phase implementation in the Bangladesh context towards full automation, given that adequate financial and human resources are available. Each company has to undergo at least 05 stages in the process- (i) Planning (ii) Developing infrastructure (iii) Acquiring the system, (iv) Training employees, (v) Deployment. Companies may span multiple stages at once depending on their strategic goals, resources, and overlapping initiatives.

Based on the findings, the study recommends that an FMCG should first automate the basic accounts and inventory management modules and then the sales channel. As sales provide the lifeline of the organization, any disruption in this channel will impact the core existence of the organization.

Small and medium size companies can utilize a compatible third-party maintained SaaS (Software as a Service) paying a small implementation fee followed by monthly/ annual subscription fee. Tentative costs of acquiring a standard SaaS based Distribution Management System (DMS) platform in the Bangladesh context is around BDT 1 million in the first year of deployment for a 100-member sales team. The cost of continuing a DMS platform from second year onwards is around BDT 859,000. The amount may vary depending on modules, features and number of users.

Findings suggest that banks are in a better position to offer an end-to-end digital payment solution to digitize payments and credits for all FMCG supply chain actors. Bank led solutions utilizing agent banking channels and digital wallets will be able to cater the varying needs of FMCG companies, distributors and retailers.

Digital payment platforms should make notification, reporting and payment reconciliation processes integrated with the ERP/ DMS platforms of the company and improve efficiency in financial reporting processes.

To develop a holistic solution, estimated investment of BDT 3.49 million in digital infrastructure development and annual recurring cost of BDT 0.88 million will be required for a 100-member sales team-based organization.

The platforms must generate and give access to usable data for all the supply chain actors which they can analyze and utilize for informed business decision making and accessing credit and other financial services. The platform interface/ mobile application has to be user friendly for last mile field staff and retailers with low digital literacy so that they can easily navigate through the features.

The study recommends that the FMCG sector business associations should collectively formulate a national level digital ecosystem development strategy for supply chain digitization, to be implemented within a time span of next 5-7 years. This plan should clearly outline the support (technology, capacity enhancement, concessional finance etc.) they'll need from the FSPs, technology platform developers and the government, in order to accelerate digital transformation in the FMCG supply chain. Development partners like UNCDF can provide technical assistance to the FMCG sector associations and the concerned government agencies in formulation of a digital ecosystem development strategy for the FMCG supply chain.

Taxation and VAT related fear factors exist among FMCG stakeholders. The findings show that the distributors and retail micro-merchants do not want to create digital transaction trails to avoid tax/ VAT payments. Pricing structure of some FMCG products at the retail level are calculated based on the assumption that tax/ VAT will be evaded by the retailers. This attitude is stemmed from the severe competition in some product segments, where companies want to survive in the market offering lowest possible price at the retail level. Also, apart from the commercially important top FMCG tax paying companies, regular tax/ VAT payer distributors and retailers are not incentivized. These issues must be dealt strategically by the National Board of Revenue (NBR), Ministry of Commerce (MoC) and other concerned agencies.

Development partners should provide technical assistance and seed fund/ grants/ soft loans to the FMCG actors, enabling them to pilot digital supply chain management and payment solutions in partnership with FSPs and technology service providers. Early-stage success cases can be demonstrated through these digital transformation pilots, to encourage other FMCG companies to invest in similar initiatives.

Development partners should establish innovation challenge fund facilities to support local technology platform developers and FSPs develop new platforms and payment products for the

FMCG supply chain actors. Such initiatives can partner with Bangladesh Government's ongoing programs undertaken by ICT Division, Startup Bangladesh, Digital Finance Innovation Lab etc. to bring together technology innovators, FinTech companies and formal financial institutions to jointly develop solutions for the FMCG supply chain.

Bangladesh Bank, FSPs and development partners can jointly establish 'FMCG Sector Digital Transformation Fund' facility to offer low-cost credit to the companies and distributors for building digital infrastructure and acquisition of digital platforms. This fund facility can offer credits to the FMCG companies and distributors in concessional interest rate with an accommodative grace period, minimizing the financial resources gap faced by small and medium size companies in implementing digital transformation initiatives.

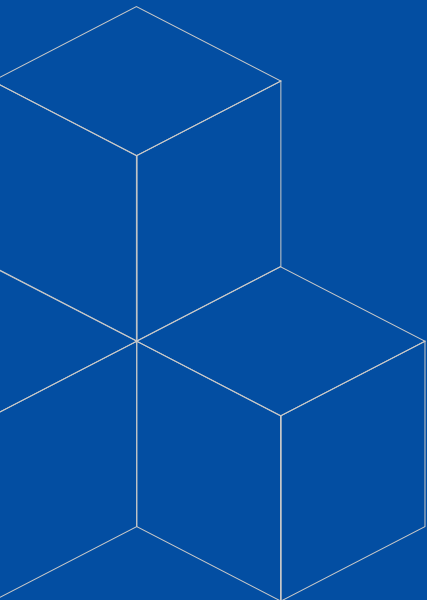
Digital transformation of a sector needs vision and comprehensive action plans developed by the key sector stakeholders. FMCG companies, small or big, should devise their own digital transformation strategies, and collectively formulate a national level ecosystem development drive for next 3-5 years. **In a post COVID-19 paradigm, digital transformation of the supply chain will be crucial to strengthen resilience and ensure survival in face of disruptions more than before.**

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CHAPTER 1: INTRODUCTION

Currently, digitization is limited till the distributor level, whereas the micro merchant (an important actor in the FMCG supply chain) are dominantly manual and there is a strong disconnect between them and the FMCG companies.

1.1 Background

UNCDF conducted a nationwide survey in 2017 on retail micro-merchants to assess the landscape of FMCG retail merchants in the country. The study covered various aspects of retail micro-merchants generating nationally representative data on their business profile and access to finance and technology issues. Now UNCDF wishes to assess the existing level of digitization in operations and payments across FMCG supply chain in Bangladesh.

The findings from the study conducted in 2017 - Landscape assessment of retail micro-merchants in Bangladesh, suggests that digitization of stock ordering process and inventory management will enable FMCG companies and distributors to efficiently manage their distribution network and generate real-time data-driven future demand forecast, whereas the merchants will be more capable of evaluating stock-outs, which is currently done in manual process. At the same time, digitization of supply chain transactions and payments will enable the value chain actors better manage their cash flow and finances across all layers of the supply chain. Digitization of payments will facilitate access to a wide range of digital financial services for the previously unserved or underserved retail merchants including access to digital credit, insurance and other products and services through generating bankable data. Currently, digitization is limited till the distributor level, whereas the micro merchant (an important actor in the FMCG supply chain) are dominantly manual and there is a strong disconnect between them and the FMCG companies.

UNCDF identified the lack of evidence showcasing the business case of FMCG supply chain operations and payment digitization. There is a need to examine whether

and how the digitization of FMCG supply chain operations and payments can benefit FMCG companies and all supply chain actors including the last mile retail merchants. Accordingly, UNCDF commissioned this research and contracted Innovision Consulting Private Limited to explore the business case of FMCG supply chain digitization with particular focus on digitizing supply chain operations and payments.

1.2 Objectives

The key objective of this study is to conduct a research on the business case of FMCG supply chain digitization in Bangladesh with particular focus on adoption of digital solutions in supply chain operations and payments among different actors including FMCG companies, distributors, wholesalers and retail micro-merchants. The aim is to explore the business case of digitizing FMCG supply chain operations and payments through analysing:



Existing digital supply chain management and payment practices in FMCG sector of Bangladesh



Potential benefits of digitizing supply chain operations (i.e. stock ordering and distribution, inventory management, logistics and channel distribution management etc.) for FMCG companies, distributors, and retail merchants



Level of investment required to introduce digital solutions in supply chain operations and potential challenges



Scopes and benefits of digitizing payments across all supply chain actors



Step by step time bound strategic roadmap for adopting digital solutions for supply chain operations management and payments.

1.3 Methodology

This formative research was undertaken from October 2020 to February 2021. The data were collected from industry experts and key informants through Focus Group Discussions (FGDs) and In-depth Interviews (IDIs). The consultants also reviewed published data and evidence to answer the key research questions.



1

Literature review

The research team reviewed relevant secondary information and reports on digitization of supply chain management and payments to identify the existing digital supply chain management and payment practices in the overall FMCG sector of Bangladesh and in other developing countries. For quantitative data on retail merchants and the overall FMCG sector, this research utilized the findings of the 'Landscape assessment of retail micro-merchants in Bangladesh (2018)' conducted by United Nations Capital Development Fund, latest comprehensive nationwide survey data in Bangladesh's FMCG sector.



2

Data collection

To understand the dynamics and preparedness of the FMCG companies and involved supply chain actors, this study undertook representative case studies on four selected FMCG companies of different categories – food and beverage; personal care; households care; and a small regional FMCG company with coverage in only one district. In-depth interviews (IDIs) and focus group discussions (FGDs) were conducted with senior, mid-level management and field staff of these four selected FMCG companies, as well as

their supply chain partners including the distributors and micro-retailers. The objective was to comprehensively assess the current state of preparedness, willingness to invest in digital transformation, overall investment and capacity enhancement requirements of these four types of companies. Based on the case studies conducted, a separate assessment of the business case of investing in digital transformation and strategic roadmap for each company has been prepared and presented. As these assessments utilized confidential data of the participating companies, we have not revealed the names of these companies as per the Non-disclosure agreement (NDA). Detailed findings of the 04 case studies are presented in Annex-A.

We also collected data from local technology service providers regarding the investment requirements on digital infrastructure, software acquisition, capacity enhancement of staff and overall implementation of digital solutions in the FMCG the supply chain. It contributed to estimate the overall investment requirements and potential efficiency gains of these investments.

Further to the IDIs and FGDs with the 4 FMCG companies, the team consulted with organizations and key stakeholders in the FMCG ecosystem, FSPs, technology service providers, digital payment aggregator platforms and regulators to better assess the key objectives of the study and provide a realistic roadmap for digitization. These respondents were selected from banks, non-bank financial institutions, technology and platform service providers, mobile financial service providers, agent banking service providers, emerging start-ups in the FMCG supply chain, regulator, and experts in the FMCG ecosystem.



3

Example of Global and Local Innovative Digital Solutions

Through literature review and consultation, the team identified examples of innovative digital solutions to demonstrate the features and benefits of similar solutions for Bangladeshi FMCG supply chain actors. Features of two global solutions relevant to Bangladesh's FMCG sector have been presented in this report, to provide some ideas about ongoing innovation and global best practices in the FMCG landscape. Cases of two Bangladeshi digital solutions have been included to provide comparable assessment and inform FMCG stakeholders about the features of currently available home-grown platforms in local context.



4

Validation

A validation workshop (presenting the key findings and the strategic roadmap developed) is planned with around 15 relevant sectoral experts, fintech and FMCG stakeholders to obtain feedback for finalization of the report with recommendation.



5

Dissemination

The key findings in the final report, incorporating UNCDF and stakeholders' feedback, will be presented in a dissemination workshop with around major FMCG and FSP stakeholders of Bangladesh to share the findings of the case studies and inform the strategic roadmap and next steps.

1.4 Scope and limitations of the study

In assessing the business case of supply chain management digitization, we limited our investigation's scope within the FMCG supply chain distribution and sales channels. We focused on the prospects and challenges of digitizing the transactions between FMCG companies, distributors, and micro-retailers. The study did not explore the potential pathways of digitizing supply chain sourcing, e.g., the transactions between the suppliers and the FMCG companies, from which the companies procure raw materials for manufacturing their products. These suppliers are core part of the FMCG value chain too, and adoption of an end-to-end digital supply chain management platform will ultimately lead to digitize the transactions between the companies and their raw material suppliers and maximize the efficiency gains of digital transformation. However, the types of transactions among FMCG companies and their suppliers are different compared to the transactions among FMCG companies, distributors and retailers across the sales and distribution channels.

The focus was on the supply chain distribution channels as it involves at least 3 types of actors (i.e., the companies, distributors, and micro-retailers), currently supply chain management processes are more disintegrated among these actors compared to the transactions between suppliers and the FMCG companies. Promoting digital transformation in the distribution and sales channel management is more complex as it involves a wider variety of actors which are also much larger in number compared to the company's suppliers. Design and adoption of digital platforms are also more complicated for this part as well. At the same time, potential efficiency gains for all the actors in these layers if summed up, are higher compared to the anticipated gains of automating supply chain sourcing. So, preference was made to explore the business case of automating FMCG supply chain sales and distribution channel management processes in this study, given the time and resource limitations.

Digital platforms allowing automated sales and distribution channel management also keep provisions for automating the procurement processes and transactions with the suppliers. Thus, adoption of an integrated platform for supply chain management processes will also enable the companies to digitally manage their transactions with the suppliers. Detailed features

of an ideal automated procurement module, and the benefits and challenges of using it for transactions with the suppliers can be further explored in a separate study.

In assessing the preparedness, willingness, and capacities of the FMCG companies and other supply chain actors, we relied on the findings of the 04 case studies and IDIs and FGDs undertaken with sector stakeholders. A representative nationwide survey with FMCG companies to assess perceptions about digital transformation, preparedness, institutional willingness to commit financial and human resources etc. could generate more detailed category wise evidence based on differences in type of product, size and scale of operations, origin of the company (local versus regional versus global), investment capability, brand equity etc.

As no end-to-end digital payment solutions integrating payments of FMCG companies, distributors and micro-retailers currently exists in the Bangladesh market, in conceptualizing the ideal payment solution for the FMCG supply chain actors we had to provide our recommendations based on the existing inefficiencies and expectations of the FMCG stakeholders from such a solution. This research could not estimate the investment requirements for adoption of digital payment solutions, neither the tentative cost structure as no such solution exists in the market from which indicative pricing structure could be understood.



CHAPTER 2: RATIONALE FOR DIGITIZATION OF FMCG SUPPLY CHAIN PAYMENT SYSTEM

For this study we adopt the following definition of digital transformation in the context of FMCG supply chain management and payment processes:

‘Adoption of digital technologies and practices to transform supply chain management and transactions processes, with the objective of enhancing efficiency and improving capabilities, leading to business growth of all supply chain actors.’

Organizations which undertake digital transformation processes ultimately intend to increase their digital maturity and capabilities. Enhanced digital capabilities enable them to improve efficiency in overall business management processes and strengthen the organization to face new competition and disruptions.

Bangladesh’s Fast Moving Consumer Goods (FMCG) sector is a \$18.42 billion annual turnover industry (Klincic & Aligishiev 2018). There are an estimated 1.3 million retail shops in the FMCG market in Bangladesh, situated across both urban centers and remote rural areas. These “mudir dokans” (small retail stores termed in Bengali) have already started to demonstrate high potential to fuel growth for diverse digital financial services; merchants engage in over 100 million financial transactions per day. Boston Consulting Group (BCG) estimates that if the current trend of economic growth is retained, around 34 million people will belong to Bangladesh’s Middle and Affluent Class (MAC) by 2025. In this context, Bangladesh’s FMCG sector is poised to become the next booming sector in the country, demonstrating high potential for entrepreneurship and employment opportunities.

Bangladesh’s Fast Moving Consumer Goods (FMCG) sector is a

\$18.42 BILLION annual turnover industry (Klincic & Aligishiev 2018)

This growth potential can be further enhanced by embracing digital innovations in the supply chain management and transaction processes. Adoption of digital platforms for supply chain management and payments will increase operational efficiency for all the actors involved including FMCG companies, dealers/distributors and the last mile retail merchants. Evidence suggests that

digitization of stock ordering process and inventory management will enable FMCG companies and distributors efficiently manage their distribution network, support real-time data-driven future demand forecasting and decision making. Digital transformation in the supply chain will enable last mile merchants to better manage their stocks, evaluate sales and take control of their finance.

Digitization of transactions and payments will enable the value chain actors better manage their cash flow and finances across all layers of the supply chain. Digitization of payments will facilitate access to a wide range of digital financial services for the previously unserved or underserved retail merchants including access to digital credit, insurance and other products and services through generating bankable data. Digital solutions can also help micro-merchants easily keep track of credit sales, which accounts for 73.1% of their sales, as revealed by the Landscape Assessment of Retail Micro-merchants in Bangladesh study. Digital transformation will create scopes of innovating technology enabled supply chain finance and credit product development for FMCG companies, distributors and retailers utilizing credit scoring mechanisms built on sales records and credit sales data.

Estimated annual value of Bangladesh's FMCG sector's inventory was USD 16.71 billion in 2018 and merchants engaged in over 100 million financial transactions per day. Average monthly sales per individual micro-merchant is equivalent to \$1,395 and average monthly inventory for individual merchant stands at \$2,887. The estimated size of the credit market for micro-merchants in the FMCG supply chain is around \$778 million (Klincic & Aligishiev 2018). The scale of the industry indicates the opportunities for digital payment service providers and Financial Service Providers (FSPs) offering appropriate payment and credit products for these supply chain actors, who are currently underserved. Adoption of digital payment is directly linked with adoption of digital supply chain management. To attain the optimum benefits of digitization of supply chain operations, digitizing the transactions among supply chain actors (e.g., distributors and micro-retailers) is essential. In addition to bringing efficiency in cash flow management processes for the FMCG companies and distributors, adoption of digital payment is expected to unfold enormous product development opportunities for the micro-merchants. Enabling access to finance for supply chain actors will ultimately lead to business growth for the FMCG companies and all

involved actors in the supply chain. At the same time, it is expected to create new business opportunities for the financial service providers and technology innovators in this segment.

However, limited evidence is available in the Bangladesh context demonstrating the business case of digitizing supply chain operations and transaction digitization. Due to this gap in evidence, there is a need to examine whether and how the digitization of FMCG supply chain operations and payments can benefit FMCG companies and all supply chain actors.





CHAPTER 3: FMCG SUPPLY CHAIN MANAGEMENT AND PAYMENT PRACTICES IN BANGLADESH - CURRENT STATE

3.1 Overview of FMCG supply chain distribution and sales channel structure in Bangladesh

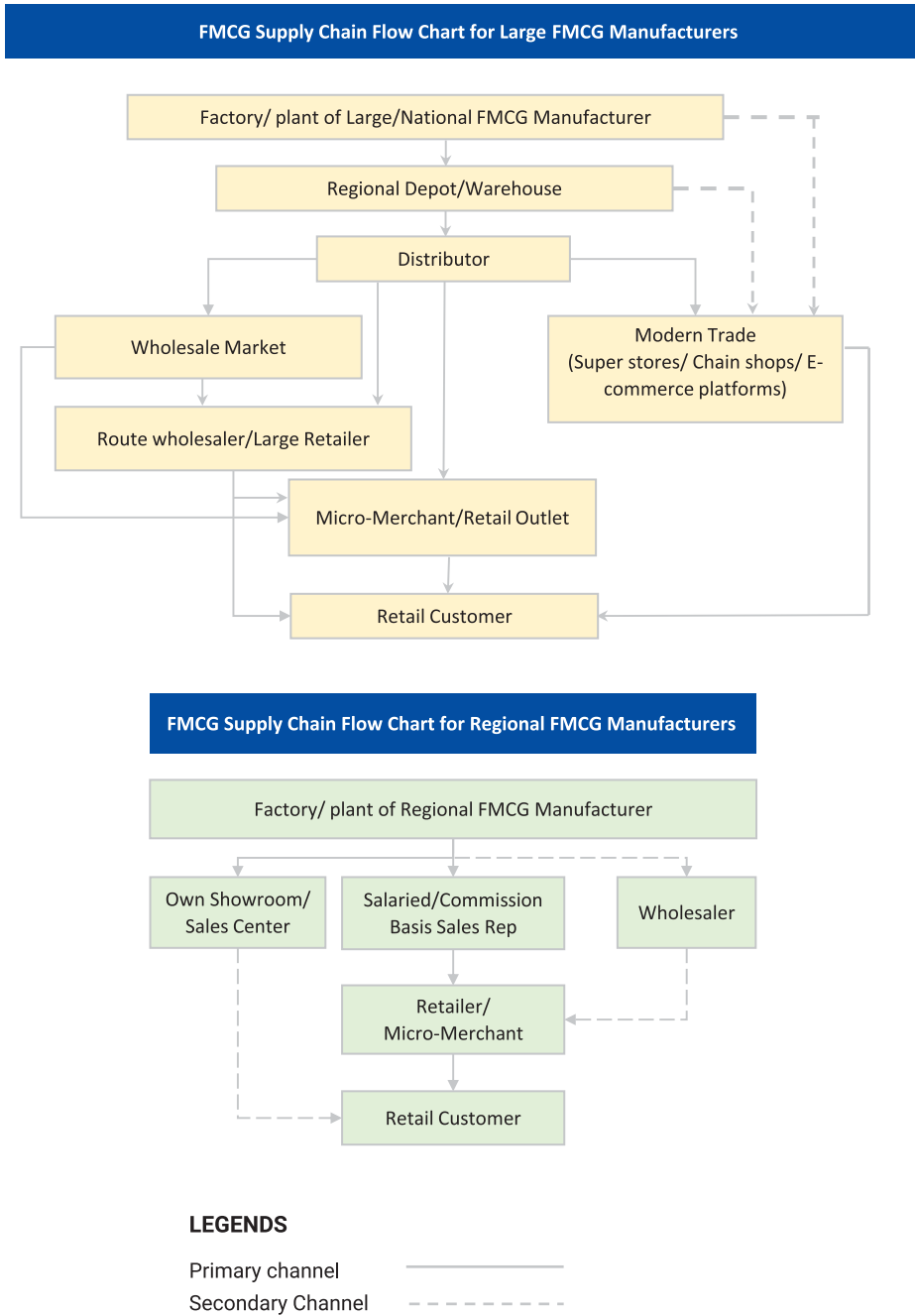
In terms of size, market presence and coverage of distribution network we can categorize FMCG companies broadly in two types- (i) Large FMCG companies with nationwide distribution coverage and (ii) Regional medium and small FMCG companies having presence within a specific region (e.g., within a specific division/ few districts/ Upazilla level).

Large FMCG companies divide the country into several regions for distribution purposes and establish their depots or warehouses in each of these regions. These locations are managed by FMCG companies themselves or by third parties. FMCG companies distribute their products through three distribution channels: conventional distribution channels, wholesalers, and alternative distribution channels such as modern super stores or chain shops or e-commerce platforms, mostly available in urban areas.

A standard retail sales-based organization is dependent on primary and secondary sales channels to reach the retailers from central warehouse via distributors across their operational area. To manage this operation, the FMCG company creates a network of distributors (and if required dealers) to reach the last mile retailers of a particular region efficiently. The distributors and dealers are placed under regional sales operations management to deliver the ordered products to the retailers. The FMCG company, on the other hand, employs its own field sales force to collect orders from the retailers.

A few other players are also present in the supply chain. Route wholesalers are essentially large retailers in the supply chain located within a cluster of outlets; the smaller merchants collect merchandise from the route wholesalers in some areas as and when required. For regional FMCG manufactures/producers, pool of both salaried and commission-based sales representatives is available in the regional level. They deliver the products of regional FMCG manufacturers directly to micro-merchants' retail stores. In some cases, products of the regional manufacturers are also sold through showrooms/ sales centers and wholesalers. Based on an estimate obtained from the Landscape assessment of retail micro-merchants in Bangladesh Survey (2018), there are approximately 2,000 distributors and between 15,000 and 20,000 wholesalers currently active in the FMCG supply chain. Generic supply chain distribution structure for both large scale FMCG manufacturers and regional small and medium scale FMCG manufacturers in Bangladesh is presented in the figure 1:

Figure-1: Generic FMCG supply chain distribution structure in Bangladesh



3.2 Supply chain management practices and current state of digital platform adoption

In Bangladesh, large FMCG companies are generally equipped with full-fledged Enterprise Resource Planning (ERP) systems that enable them the visibility of end-to-end operations from procurement to production. However, ERP by default does not cover the operations beyond the point where the product is shipped out of the central warehouse. Most of the Multinational Corporations (MNCs) and Bangladeshi large FMCG manufacturers' central warehouse and region depots are managed also under automated platforms. Most of these ERPs generate distributor wise sales reports. The delivery documents are generated digitally but sales recognition is completed after getting signed delivery documents from distributor which is a manual process. However delivery documents are sent through email/Whatapp these days by the distributor or sales officers. Sales reports are generated from the system and presented in basic MS Excel software.

Medium and small scale FMCG manufacturers have partial to no automation in their supply chain management processes. Companies with partial process automation work with different ERP software for selective verticals (e.g., Accounts, Inventory, HR & Admin etc.) which may or may not be integrated with each other. Significant portion of their distribution network is managed through manual paper-based reporting systems. Many companies keep manual records and process data in MS Excel for reporting purposes only.

Transactions among distributors and micro-merchants are conducted manually, stock ordering and payment collection processes happen in person. Few cases of Sales Representative (SR) assisted digital ordering practices have been observed during our interviews with the retailers. Most of these initiatives (Unilever, Nestle, PRAN) are in the early pilot stage where FMCG companies and distributors are planning to adopt digital stock ordering and inventory management platforms enabling them to collect orders digitally from the retailers. We will be able to better understand the outcome of these initiatives once the results are being disclosed by the companies.

However, even for the larger FMCG companies,

the ERP system does not cover the whole distribution operations by default. Often the interactions with distributors/ wholesalers are conducted manually and then the data is entered by company staff in the platform for reporting purposes. The absence of end-to-end digital supply chain management platform cause inefficiency in the sales channel and distribution network management, as observed in our FMCG company case studies. FMCG companies and their distributors do not get the 360° view of the entire supply chain operations. This results pilferage and efficiency gaps in the management processes.

3.3 Practices in Sales Force Monitoring

Senior and mid- level staff of FMCG companies interviewed in this study suggested that monitoring the day-to-day activities of the field level sales force, commonly termed as Sales Representatives (SR) is extremely stressful for the management in existing traditional method. As the company's sales increases, associated costs of creating sales orders and generating subsequent paper-based reports also grows. Our case studies on four FMCG companies show that Sales Representatives (SR) lose a significant amount of their working hours as they are required to return to the distribution houses to report daily sales status. If they could access an automated platform for quickly reporting daily sales, this time could be utilized for more sales visits and promotional activities in the markets.

If the time of field staff allocated for daily reporting could be utilized for promotional activities in the market, it could help the companies promote new products among the merchants and their customers, as well as expand sales in untapped areas. 'Micro-merchants prefer to sell products well known to their customers, they are reluctant to experiment with new or alternative products' as 'they receive little or no support in promoting new products to their customers from the sales representative or distributors, which makes it harder for them to promote new products'. It indicates that if more working hours of the field staff could be allocated for promotional activities instead of reporting tasks, companies could support the micro-merchants more in selling new products.

Monitoring the sales force in traditional methods is also challenging for mid-management as in many cases SRs are not transparent in submitting

their visit reports, they often tend to report more visits than actually made in the field, as mentioned by the FMCG mid-management staff we interviewed. Traditional monitoring and reporting mechanisms require micro monitoring of mid-management to ensure accountability of the SRs. Many companies have adopted mobile phone based digital route tracking and reporting of sales visits to make this process more efficient and transparent.

3.4 Practices in Central Reporting

Another point of concern for the FMCG companies is the central reporting tasks. Once the daily sales reports are received from the regional teams, their central reporting team in the HQ prepares daily, weekly, monthly, quarterly, half yearly, and yearly (and other ad-hoc) reports for management review and decision making. Depending on the size of the company and volume of data generated, the reporting teams have been observed to consist of up to 40 persons when the reporting is managed manually. Based on the market observation, it can be estimated that for every 100-field staff, a central reporting team of around 3 members are required in HQ.

3.5 Practices in Ordering and Inventory Management

Currently micro-merchants cannot directly place their stock orders to the distributors digitally. Some companies (e.g., Unilever) and distributors have introduced digital platforms through which SRs and other field staff can place orders, as observed during our FGDs with the retailers in urban areas. Micro-merchants seem not to be involved directly in this digital ordering process. SRs carry digital devices and place orders through their respective digital platforms, based on the orders they receive from the merchants during the visits. Most of these pilots are still at their very early stage of roll out. We will be able to learn more once the results are disclosed by the FMCG companies undertaking these initiatives.

Inventory management and reporting at the distributor and merchant level is conducted through manual record keeping processes. One key hassle in this process is the inability to monitor stock of expiring products at different layers of the distribution. Companies, distributors,

and retailers do not get a complete view of the stock of expiring products due to manual management and reporting of inventory, especially the issue is crucial for Food and Beverage companies. It creates various challenges for the distributors in managing the return of expired products, in addition to the incurred loss for those products.

3.6 Adoption of automated platforms for supply chain management

To improve the supply chain management processes, FMCG and other retail sales-based industry organizations are increasingly adopting automated platforms for managing their retail sales channels. These sales process automation tools are generally termed as Sales Force Automation (SFA) system or Retail Channel Management (RCM) System, or Distribution Management System (DMS).

Under the SFA system, the inventory is tracked starting from the central warehouse all the way to the retailers via the distributors and dealers (wherever applicable). The system is primarily used by the field sales team members (SRs) who collect orders from the retailers using a mobile application. The application data is synchronized with the central system on a real time basis (depending on the availability of internet). Many platforms also allow offline data collection in the field, the data is synced when the internet connection is available later. Each SR remains connected with a distributor house, who also receives updated reports on the outlet-based order collection. The distributor then arranges the delivery representative (DR) along with the ordered items, who then distributes to and collects payment from the respective retailers.

In this process, the FMCG company gets a clear view of the delivery supply chain starting from the central warehouse and tracks their inventory flow to different distributors and dealers. It also enables them to track the delivery flow to the retailers. This system helps the organizations to measure their sales team's efficiency according to geography, product category, and other factors. Usually, the SFA systems are designed in such a manner so that it can work as a standalone software. It can also be integrated with other software (e.g., ERP) for seamless data communication and central reporting.

Even though many large scale FMCG manufacturers have taken up this sort of solution years back, there was an inertia among the medium and small sized companies toward automation of the sales process. However, over the last 5 years, the gradual decline of internet usage cost and prices of smartphones have encouraged these companies to adopt these systems. Moreover, the emergence of COVID-19 pandemic has established a strong acknowledgement of the need of this sort of systems to make the performance monitoring easier. The pandemic situation has in fact become a catalyst for medium and small sized FMCG manufacturers to experiment new process automation solutions.

Few home-grown and international solutions are currently available in Bangladesh for sales process automation. Salesforce is globally one of the most popular software in the DMS or SFA category and has their sales agency in Bangladesh as well. Despite its advanced features, the product is comparatively expensive for Bangladeshi FMCG companies, as reported by sector stakeholders consulted in this research. The pricing of globally popular solutions are at least two to ten times higher than the home-grown solutions, depending on the features and customization requirements, as suggested by local technology service providers and FMCG stakeholders. There are also few other solutions available in the Bangladesh market, developed and deployed by Indian software companies. However, lack of on-demand onsite support and lack of sensitivity toward minute level customization requirements are factors which demotivate local FMCG companies to take up solutions developed by foreign technology service providers.

Responding to the growing local demand, several local DMS or SFA solutions have emerged over the last few years. These software have been designed assessing the Bangladesh market needs and are very budget friendly for mid and small size FMCG companies in terms of subscription costs. These also offer customized solutions according to the client requirements. Among the local prominent standalone SFA solutions available in Bangladesh (Sokrio, Fieldforce, Business Automation, and FieldBuzz) etc. have gained client attraction. In addition, mobile network operators (MNOs) like Grameenphone, Robi, and Banglalink also offer their own branded SFA solutions to cater their corporate customer segment.

The local solutions, responding to the local

requirements and field realities, deal with descriptive analysis only. However, over the time, the local DMS solutions is expected to move toward predictive and prescriptive analysis where the software will be able to utilize emerging technologies such as big data analytics, machine learning and Artificial Intelligence (AI) tools. The local FMCG companies also currently lack the capacity to use this sort of advanced tools for business analytics.

The Bangladeshi FMCG companies, on an increasing trend, are finding out that automation is the only way they can sustain in this competitive business environment. Large or small, all the FMCG companies are convinced that they have to pivot their field sales operations and inventory management processes with the help of digital technologies. Disruptions created by COVID 19 have strengthened the motivation to uptake digital solutions among the small and medium sized FMCG companies which were previously following manual paper-based supply chain distribution methods, as observed in our FMCG case studies and stakeholder interviews.

Emergence of digital marketplaces and expansion of digital customers have opened new frontiers for the FMCG sector. FMCG stakeholders understand the importance of undertaking digital transformation to survive in this ongoing paradigm shift. Insights about customer needs, behaviors, and preferences are now more generally available from digital sources. Bangladeshi FMCG stakeholders are aware of the importance of enhancing web presence and creating convenient touch points for both customers and supply chain partners including the distributors and retailers. To compete in the e-commerce segment, dynamic investment for developing optimized web, mobile and e-commerce channels is the entry point. Integrating supply chain operations and digital payment mechanisms are key parts of this digital expansion.

To automate the sales and supply chain management processes, FMCG companies need to have sufficient technology infrastructure. The ecosystem requires procurement/ usage of smart gadgets, access to internet, and digital literacy of the field workforce and external supply chain actors (who will execute the process). Thanks to the availability of cheaper smartphones, access to mobile internet has significantly increased among the middle and lower middle-income groups. Even though the price of the internet has remained somehow constant over the last decade, overall access to the internet has increased significantly.

This phenomenon has also increased the acceptability to use new mobile based platforms among the field level sales and distribution team members in the FMCG supply chain. Last mile retail merchants are also using smartphones, social media, and other communication tools. There, adoption of digital supply chain management and payment solutions is becoming easier considering the changing field realities. Given this shifting paradigm in the market, it is a good time to promote and incentivize digital transformation of the FMCG supply chain in Bangladesh.

3.7 Payment practices, available payment and credit options and state of digital payment adoption

Significant portions of the payments among major actors in the FMCG supply chain are dominated by conventional cash-based transactions. Currently four types of payment options are available under current payment jurisdictions in the Bangladesh market for the FMCG supply chain actors:



Bank account-based transactions (includes agent banking channels, online banking, debit/ credit card-based transaction options)



Mobile Financial Services (MFS) wallets



Other digital wallets/ payment platforms offered by Payment Service Providers (PSPs) and Payment System Operators (PSOs)



Cash based transactions

In the primary sales channel, transactions between the FMCG companies and their distributors are settled through formal banking channels in almost all the cases. However, in the secondary sales channel, the transactions between distributors and retailers are mostly cash based. Insignificant percentage of these transactions are being settled through MFS wallets, though these incidents are mostly occasional. We have not observed usage of any PSP/ PSO led platforms in the FMCG supply chain,

apart from some superstore chains and e-commerce platforms selling FMCG products are utilizing payment aggregators for collecting online payments from the customers.

Transactions between FMCG companies and their distributors/ dealers are settled through the banking channel. Due to expansion of agent banking services in the rural areas, distributors are now doing these transactions more conveniently as they are not required to travel to bank branches. Companies and the distributors are also availing Electronic Fund Transfer (EFT) and online banking services. Amount of these transactions and periodic frequency vary from company to company. Respondents have stressed on the suitability of banking channels for facilitating transactions in this layer of the supply chain, currently available MFS wallets are not appropriate considering the transaction size and costs. Stakeholders are satisfied with the transaction and account maintenance costs of the banking channels and identified MFS wallets' commission structure as one of the key barriers in adoption of those services. Dealers/ distributors of some small scale regional FMCG companies transact directly through cash during collection of the products from the company factory/ warehouse.

Even if the company has an automated ERP/ Distribution Management System (DMS)/ Sales Force Automation (SFA) system, payment received through the banking channel is reconciled manually against the distributor's account during record keeping. Stock ordering, inventory management and distributor's payment history/ confirmation are not integrated digitally, so ordering and invoicing processes involve manual checking of distributor's payment status. It creates an extra layer of manual verification and reporting requirement (usually conducted by Finance and Accounts staff) to input payment confirmation against orders. Digital supply chain management platforms should have real time notification features when a transaction is done from a distributor's account to the company's account, as recommended by both company staff and distributors. It will require technical integration between the technology platform developer and bank's platform, as suggested by the platform service providers and bankers. Currently, few banks and Non-bank financial institutions (NBFIs) (e.g., IPDC, The City Bank Ltd.) have introduced blockchain based supply chain finance platforms where supplier's payments are verified and notified to company's dashboards in real time. Similar initiatives can be designed for receiving distributors' payments into the FMCG company's accounts.

CURRENT PAYMENT PRACTICES



The payment flow from retailers to distributors is mostly **CASH BASED**



Customers mostly transact through **CASH** with **THE RETAILERS**



Both the **distributors and merchants** have reported that they are willing to use digital payment platforms if the **COST STRUCTURE IS FEASIBLE** considering the business margin of the FMCG supply chain actors in the retail level.



57% micro-merchants in Bangladesh have no bank accounts



Some merchants do not want to create digital transaction trails to **EVADE TAX/ VAT PAYMENTS**



Most of the micro-merchants do not keep **SEPARATE FINANCIAL ACCOUNTS** for business



Absence of proper business record keeping is one of the key reasons of being **UNDERSERVED** by formal financial institutions

The payment flow from retailers to distributors is mostly cash based. Product delivery, ordering, cash collection process and payment cycle vary from company to company and region to region. Usually Sales Representatives (SR) visit stores and take orders, Delivery man (DO) delivers products to the retailers. Either the SRs or the DO collect cash from the retailers during the visit, depending on the distributor's operational model. Distributors provide credit to the retailers based on their relationship. The practice varies depending on location, type of product and other concerns. FMCG companies usually are not involved in the transaction process between retailers and distributors, apart from the small-scale regional companies where the company staff directly transact with the retailers.

Distributors have reported several challenges faced due to cash-based transaction processes, which includes incidents of cash loss, fraudulent activities, and other inconveniences, mostly occurring due to lack of employee integrity. Carrying cash is unsafe in some areas and incidents of mugging happens. Also, sometimes SRs and DRs steal the collected money and flee away from their jobs. Sometimes the field representatives hold up the money for personal interest and delay in depositing the amount into distributor's accounts. They misreport regarding payment collection and inform the management that retailers are delaying payments, whereas the retailers have already paid their dues. Also, distributors lose money due to fake or damaged currency collected in this process.

Monitoring this cash-based payment collection process, manual reporting in the distributor's warehouse and then depositing the collected sum of cash in distributor's bank account involves significant amount of time for distributor's human resources. From the delivery of products in the stores to depositing collected cash in distributor's bank account usually has a lag time of 2-7 days, depending on location and pattern of distribution channel management, as observed in our case studies. It imposes extra investment burden on the distributors. This money could be utilized in increasing stock/ expanding business if the payment could be realized from the retailers digitally in distributor's account in real time. Digitization of payments will help the distributors to reduce risks of cash-based transactions and increase operational efficiency with streamlined reporting processes.

Distributors and retailers are not interested to transact through MFS wallets, given the current

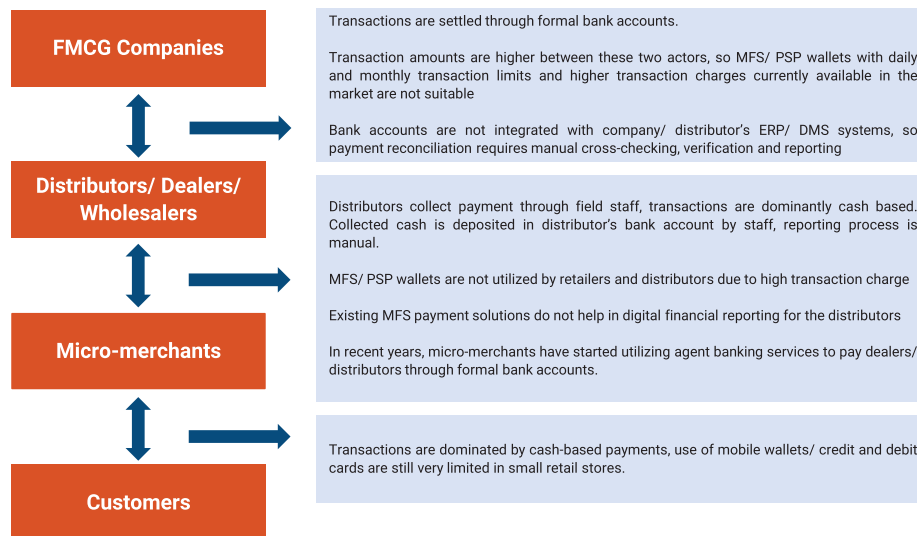
cost structure. Retailers rarely pay to the SRs through MFS wallets, usually when the SR is unable to visit a particular store due to any specific reason, or the retailer is away from his area during the payment collection date. These incidents are occasional, no distributor regularly collects payments from the retailers using MFS wallets. For some FMCG products, the net profit margin is between 1-3% for the retailers, hence they cannot afford to transact bearing the current MFS transaction costs (which varies between 1.5% to 1.85%).

Distributors have also mentioned that the current MFS wallets are not suitable for their operational needs, as payments received through these wallets cannot be directly reported to the digital platforms they are using for ordering, inventory management and field staff monitoring. MFS wallets are not linked with DMS/ ERP systems used by the distributors. Even if the distributors collect payments through MFS wallets, their staff will have to manually track and report the payment confirmations in the system. They will also need to transfer the collected payments to the distributor's bank accounts and settle transactions with the FMCG company from that account. It will add another layer of transaction cost for the distributors. Thus, the process will remain inefficient in terms of reporting and payment reconciliation, incurring additional transaction costs for both distributors and retail merchants.

Customers mostly transact through cash with the retailers. In some cases, the customers pay through MFS being incentivized by various cash back offers of the MFS providers. As the retailers mostly receive cash payments from their customers, they have to top up their digital wallets if they are required to pay their distributors through these wallets. In order to cash in they need to go to an agent point/ nearest ATM. Instead of taking this extra hassle, retailers can now pay the SRs during the payment collection visit in their stores with cash, which apparently incurs no direct transaction cost for them. As a result, this cash driven ecosystem and cost structure of the MFS wallets discourage the retailers to uptake digital wallets for paying the distributors. When asked to name three things they dislike about MFS they mention high service charges, network downtime problems, and inability to retrieve money when sent to a wrong account (Klincic & Aligishiev 2018).

An overview of the dominant payment practices across different layers in the FMCG supply chain is presented in the diagram on the next page.

Figure 2: Overview of dominant payment practices across different layers in the FMCG supply chain



Landscape Assessment of Retail Micro-merchants in Bangladesh survey conducted by UNCDF (2018) reported that about 30% of micro-merchants have a Mobile Financial Services (MFS) account, yet only 5.6 percent occasionally use it to pay the distributors/ dealers. Though some retail merchants also act as MFS agents and provide related services to their customers, penetration of MFS merchant accounts among the micro-merchants and distributors in the FMCG supply chain is very low.

Both the distributors and merchants have reported that they are willing to use digital payment platforms if the cost structure is feasible considering the business margin of the FMCG supply chain actors in the retail level. Distributors have stressed on development of low-cost customized end to end payment solutions which will meet the payment collection methods of FMCG supply chain actors and enable efficient financial reporting.

Another concern reported by our respondents is the taxation and VAT related fear factors, some merchants do not want to create digital transaction trails to evade tax/ VAT payments. In the Bangladesh context, pricing structure of some FMCG products at the retail level are calculated based on the assumption that tax/ VAT will be evaded by the retailers, as reported by FMCG

supply chain stakeholders in this research. Such an attitude is stemmed from the severe competition in some product segments, where companies want to survive in the market offering lowest possible price in the retail level. This fear factor of the merchants regarding taxation is a serious concern in the way of promoting digital payments in the FMCG supply chain.

Majority of micro-merchants are currently unbanked, 57% micro-merchants in Bangladesh have no bank accounts¹⁷. Micro-merchants borrow regularly for personal and business needs from both informal and formal sources, yet they mention that they have greater credit needs than what is available now to them. Estimated size of the credit market for the micro-merchants was \$778 million in 2018, 68% of the merchants borrow from Microfinance Institutions. Only 13% of the micro-merchants having bank account reported to have borrowed from the banks¹⁸. This suggests that microfinance institutions are a key source of credit for the micro-merchants, and even when micro-merchants are bank account holders, they are less likely to borrow from the banks.

One key reason of being underserved by formal financial institutions is the absence of proper business record keeping; most of the micro-merchants do not keep separate financial accounts for business. Lack of proper business

¹⁷ ibid

¹⁸ ibid

registration documents and inability of the financial service providers to assess their creditworthiness based on prior sales data also contribute to this situation. Small merchants mostly use daily sales to reinvest in the business, often they do not have a clear idea about actual profit/ loss.

Though the micro-enterprises are commonly vulnerable to shocks such as health, death or loss in business, less than 1 percent of retail micro-merchants have access to an insurance product. Absence of documented business track records create challenges for the insurance service providers to understand the common risks and risk response behavior of the merchants. Thus, tailored insurance products to support the micro-merchants are absent in the market.

Digitization of stock ordering, inventory management, distribution management and payment processes will produce bankable data in favor of the micro-merchants, which will enable formal financial institutions to develop tailored credit and insurance products for this client segment. Digitization of supply chain operations and payments till the last mile retail merchants is the entry point to generate sufficient data for alternative credit scoring mechanisms, which banks and FinTech innovators can utilize to develop products at comparatively lower costs. A viable business model for offering credit to the small merchants will require potential of growth in scale quickly, where the marginal cost of each additional customer acquisition must be much lower than the traditional 'brick and mortar' branch-based banking channels. Without digital finance and alternative channels, it cannot be achieved. Thus, digitization of payments in the FMCG supply chain is the first step to unlock the potential of this unserved and underserved segment.





3.8 State of Readiness and Systemic Constraints towards digital transformation

Based on the assessment of the four FMCG companies and inputs from wider FMCG sector stakeholders, preparedness level of the FMCG sector to undertake digital transformation and relevant systemic constraints are presented below:

Focus areas	Level of preparedness	Systemic constraints/ challenges
 <p>Organizational Capacity and preparedness of the Human Resources</p>	<ul style="list-style-type: none"> ■ Most of the companies lack comprehensive vision and long-term strategy to undertake digital transformation. ■ Limited ability of senior and mid-level management to comprehend the implementation process of an end-to-end supply chain management solution and potential benefits. ■ Very small portion of the human resources have necessary skill sets to successfully adopt and operate digital solutions. ■ Absence of clearly mapped, defined and documented business processes in small and medium sized companies. ■ Processes are disjointed, often not formalized, and built upon legacy foundations focused on the disparate needs of each department. ■ Low level of interest in engaging and training external supply chain partners (e.g., distributors, retailers etc.) in the digital transformation process. ■ Most of the small and medium sized companies lack advanced analytics capacities, which restricts optimal utilization of the data and insights generated from adopted digital platforms. 	<ul style="list-style-type: none"> ■ Business processes are not properly mapped, documented and well defined in most of the companies. Variances between documented process and field practices are also observed, emerged from long term practice by mid-management and field staff. So, unless thoroughly reviewed and assessed during the inception phase, in many instances digital business process laid out in the platform does not match with actual field level operational practices of the employees, resulting in lower efficiency gain from the deployed solution ■ Resistance in adoption of digital platforms comes from 'change-averse' employees who perceive deployment of digital solutions as a negative disruption. ■ Inadequate allocation of financial and technical resources for developing capabilities of the employees and external channel partners, absence of continuous capacity enhancement plan for the staff. ■ Importance of cultural change within the organization is undervalued. Also, often senior management overestimates their employees' capabilities to cope with the new system.

Focus areas	Level of preparedness	Systemic constraints/ challenges
 <p>Infrastructure and Operational Platform</p>	<ul style="list-style-type: none"> ■ FMCG companies use ERPs/ DMS for Accounting, inventory management, order processing etc., no end-to-end digital platform integrating the last mile retailers have been scaled up. Few large multinational and local companies have started piloting integrated solutions, roll out is still at its early phase. ■ Advanced modules of the ERPs/DMS solutions are mostly underutilized, companies use basic features and modules for day-to-day operations. ■ Analytics are still undertaken purely as a reporting function. Platforms are not optimally utilized for generating insights which can drive innovation to tap new customer segments/ improve efficiency in supply chain management processes across different layers. ■ Often companies invest in different stand-alone digital platforms which do not interact with each other, thus reducing the overall efficiency gain of those investments 	<ul style="list-style-type: none"> ■ In many cases companies look for solution on ad-hoc basis and lack a long-term digital vision & strategy. Thus, acquisition of infrastructure and operational platform does not sustain in the long run. ■ Due to lack of technical expertise, often mid and small sized companies face complexities in decision making regarding adoption of most appropriate platform.
 <p>Competition</p>	<ul style="list-style-type: none"> ■ Companies are willing to undertake digital transformation phase by phase, without risking their competitive advantages and disrupting existing supply chain operations. ■ Risk averse cautious attitude prevails in adoption of digital transformation. Only some large companies with strong competitive advantage in the market are rapidly moving forward in this process. 	<ul style="list-style-type: none"> ■ Company management often lacks in expertise to methodically assess the potential competitive advantage they can obtain from digital transformation. At the same time, they are unwilling to invest to hire external experts for appropriate strategy design and feasibility assessment.

Focus areas	Level of preparedness	Systemic constraints/ challenges
 <p>Investment willingness and Commitment to Finance</p>	<ul style="list-style-type: none"> Companies are willing to invest in automation and understand the potential benefits. Disruptions caused by COVID 19 pandemic has motivated them to accelerate digital transformation processes to increase resilience. But current financial health of many companies (especially small and medium companies) is restricting them to make immediate investment in digital transformation. Companies are interested to use digital payment platforms if that brings operational efficiency and reduces transaction costs and risks. 	<ul style="list-style-type: none"> Arranging financial resources for digital transformation is challenging for many companies amid current uncertainty and disruptions brought by COVID-19. Sustaining in the market is main priority for many companies now. Companies often start investing in digital platforms without a long-term vision, in ad-hoc basis. Without a proper strategy and continuous investments, those ad-hoc initiatives often don't sustain. Financial institutions currently don't have credit support schemes to support companies/ distributors to invest in digital transformation.
 <p>Access to digital device, internet, and digital financial services</p>	<ul style="list-style-type: none"> Field sales teams, distributors and retailers do not have adequate access to smartphones/ required digital devices Many companies do not provide access to data facility for all the last mile sales team members. Companies do not use MFS for supply chain operations currently, some evidence of occasional transactions between SRs and retailers have been observed. Customized payment solutions for FMCG supply chain actors yet to emerge in the market. 	<ul style="list-style-type: none"> Field level sales team members have low level of digital literacy to use advanced platforms. Without adequate training, adoption of digital supply chain management platforms in the last mile is challenging. Distribution channel partners do not want to create digital trails of transactions to avoid income tax/ VAT. Cost structure of existing digital payment options is not feasible for distributors and retailers.



Digitization of stock ordering, inventory management, distribution management and payment processes will produce **BANKABLE DATA IN FAVOR OF THE MICRO-MERCHANTS**, which will enable formal financial institutions **TO DEVELOP TAILORED CREDIT AND INSURANCE PRODUCTS** for this client segment.










CHAPTER 4: FMCG SUPPLY CHAIN MANAGEMENT AND PAYMENT PRACTICES IN BANGLADESH - CURRENT STATE

4.1 Efficiency and simplification of the supply chain management process

Initiating digital transformation of the supply chain operations enable companies to review existing supply chain processes, identify inefficiency and design optimized and well-defined processes before going for automation. It helps the senior management identify existing inefficiencies, find avenues of cost and time saving and improve the overall experience of internal staff and external supply chain partners. An end-to-end digital supply chain platform helps the companies to:

-  Significantly reduce manual paperwork-based reporting
-  Introduce real time reporting and market feedback
-  Reduce both monetary and time expenses incurred from inefficient use of human resources
-  Minimize ad-hoc communication requirements between field staff, mid-level managers and senior management
-  Ensure easier information management from the company HQ



Reduce human errors in reporting processes



Design and utilize a Workflow Execution System (WES) to synchronize operations between human workers and automated systems



Assess and efficiently plan inventory management, make appropriate decisions about procurement processes and can significantly reduce inventory cost. Lower inventories increase cash flow which can be invested in other required areas to enhance long term competitiveness of a company.



Ensure optimum utilization of physical storage space in the warehouses



Better understand and analyze productivity, employee performance, level of collaboration and identify areas of improvement.

4.2 Increased accountability and transparency across all the supply chain layers

Sales channel automation helps the companies to ensure accountability of the sales team members. In the Bangladesh context, quite often, field staff are found to misreport their daily visit status. Often they tend to skip visiting stores and underperform in distributing and monitoring the company's promotional merchandise as instructed. Micro-monitoring involves inefficient use of human hours of the mid-management, which is high considering the opportunity cost of time. Utilization of automated sales force management platforms help the companies and distributors in:



Efficient route planning and remote reporting



Time, date, location and image verification of the field staff visits



Accurately tracking working hours and overtime of the field staff



Reduced chances of delivering fabricated activity report from the distribution team members



Streamlining logistics planning using routing and scheduling modules

4.3 Improved supply chain partner management experience

An end-to-end digital supply chain management solution makes the interactions and transactions between FMCG companies, distributors and retailers easier and efficient. It improves the partner management experience through:






Enabling efficient management of primary and secondary order & sales tracking and delivery confirmation through integrated dashboard

-  Automated digital invoicing and payment information management, simplifying verification tasks for both company staff and distributors
-  Maintaining dedicated profile for each distributor and retailer, which helps to set custom pricing for distributors and assess each distributor's performance easily
-  Retailer registration features enable distributors and FMCG company to track delivery, stock, ordering trend etc. till the last mile of the supply chain
-  Simplified stock return, stock rotation & transfer management reduces frictions in this process
-  Generates integrated inventory balance report, dashboard and analytics for the company, distributors and retailers
-  Enable the company to integrate and better manage all promotional schemes such as (i) product with product, (ii) flat discount with product (iii) percentage discount with product etc.
Helps to design the company data driven customized promotional offers for better performing distributors and retailers
-  Usage of WMS (warehouse management system) helps to improve efficient use of warehouse storage capacity and minimize human touches in the pick and pack processes of the warehouse
-  With real time order taking facility, FMCG companies get into stronger position to quickly fill up the empty shelves of the retailers with their own product
-  Real time ordering process enables the distributors and the company to efficiently plan distribution, reducing the lag time between order and product delivery to the stores
-  Integrates all supply chain stakeholder touchpoints to create a better experience for the distributors and retailers
-  Support to establish Omni-channel distribution centers, simplify order picking and reverse logistics

4.4 Generation of real time data, smart analytics and informed decision-making

Digitization of supply chain operations and payments help a company to streamline the way it tracks data, measures performance, generate insights and utilize it for informed decision making. It allows the stakeholders to have access to real time data, reduces ambiguity in communication across different layers of the supply chain. Bangladeshi small and medium scale FMCG companies and distributors are traditionally tuned to make hunch and experience-based decisions, availability of more data and insights derived through digital platforms will help initiate data driven strategy formulation to take advantage of market opportunities and increase resilience for future disruptions.

-  Ensures end to end traceability of inventory, distribution and payments
-  Better organize and manage supply chain stakeholder and customer data, insights, and analytics across the organization
-  Improved understanding of retailer and customer behavior, trends

and variations in the last mile for the companies and distributors



Helps the companies and distributors to identify shop wise bounce rate, order taking frequency, product lifting behavior, location wise SR performance, Stock Keeping Unit (SKU) wise growth etc.



Helps to reduce the communication gap between FMCG company, distributors, and retailers regarding various information like sales return, outstanding dues, etc.



Enables senior and mid-level management to analyze business performance and make accurate sales forecasts based on historical data



Helps to monitor seasonal trends to understand busier times and ensure proper staffing levels across the value chain as required



Supports the management to identify areas of improvement and devise strategy for designing new products/ explore untapped market segments



Enables the management to identify areas of improving operational agility, updating policies and processes to more rapidly adapt to change



Helps the retailers to have clear understanding about sales pattern, identify fast moving and high profit Stock Keeping Units (SKUs) and efficiently invest working capital on profitable products

4.5 Reduced cash management risks, improved cash flow and scopes for new payment and credit product development

In the Bangladesh context, SRs and DRs have been observed to hold up the collected cash payments received from the retailers for personal benefits. Some field staff use the collected money for personal purposes (e.g., servicing a personal debt/ invest in very short-term ventures) instead of depositing them in the distributor's bank account in scheduled time. Sometimes the short-term investments incur loss, making the SR/ DR unable to deposit in the distributor's account in due time. Front-line field staff sometimes quit the job without proper notice and flee away with this collected money. These issues are then unearthed when the next representative visits the retailers for dues collection and finds that payments have been already collected, but not deposited in the distributor's account. Also, incidents of mugging, and collection of damaged/ fake currency cause financial loss for the distributors. The cycle of product delivery to cash collection and reconciliation of the deposited cash from multiple SRs in the bank account of the distributor takes 2-7 business days. Introduction of digital payment mechanisms integrated with a DMS/ SFA software could resolve these issues for the distributors. Digitization of payments across the supply chain will:



Reduce financial loss and payment collection risks, primarily for the distributors



Make the invoicing, stock ordering and payment reconciliation processes streamlined



Generate bankable data for both distributors and the retail merchants



Enable retail merchants better manage their financial record, utilizing it for informed investment decisions and access to credit



Formal financial institutions will be able to utilize this data for developing alternate credit scoring mechanisms, customized digital payment products and suitable credit products for the distributors and retailers



Transaction data of the retailers will help the insurance service providers better assess the risk profile and financial management behavior of this client group, ultimately contributing to development of targeted insurance products for this segment

4.6 Enabling the companies to expand outreach to digital marketplaces and emerging digital customers

Introduction of digital supply chain management processes is the entry point to integrate with emerging digital marketplaces and customers. E-commerce is rapidly growing in Bangladesh, COVID-19 situation has brought new opportunities for the FMCG companies to expand their customer outreach through digital marketplaces. To sell products in these e-commerce platforms, digitizing both supply chain operations and payments are essential. Also, local retail super shop chains are increasing their virtual presence, improving logistics channels to expand their nationwide home delivery coverage. These super shops are important sales channels for the FMCG sector. Some large FMCG companies are also investing to establish their own retail super shop network across regions and expanding their presence in the digital marketplaces. To comply with the digital expansion of this emerging sales channel, FMCG companies have to undertake digital transformation. Without digitizing the ordering, inventory management, delivery and payments processes, emerging digital customer segments will remain untapped. Digital transformation of supply chain operations helps FMCG companies:



To integrate with e-commerce and digital marketplaces



Improves transaction touchpoints for third party digital sales channel operators like e-commerce platforms



Generate data and insights to better understand the emerging digital customers and design strategies for this customer segment



Devise effective digital marketing strategies to reach and engage with customers through multiple digital channels



CHAPTER 5: STRATEGIC ROADMAP FOR DIGITIZATION OF FMCG SUPPLY CHAIN

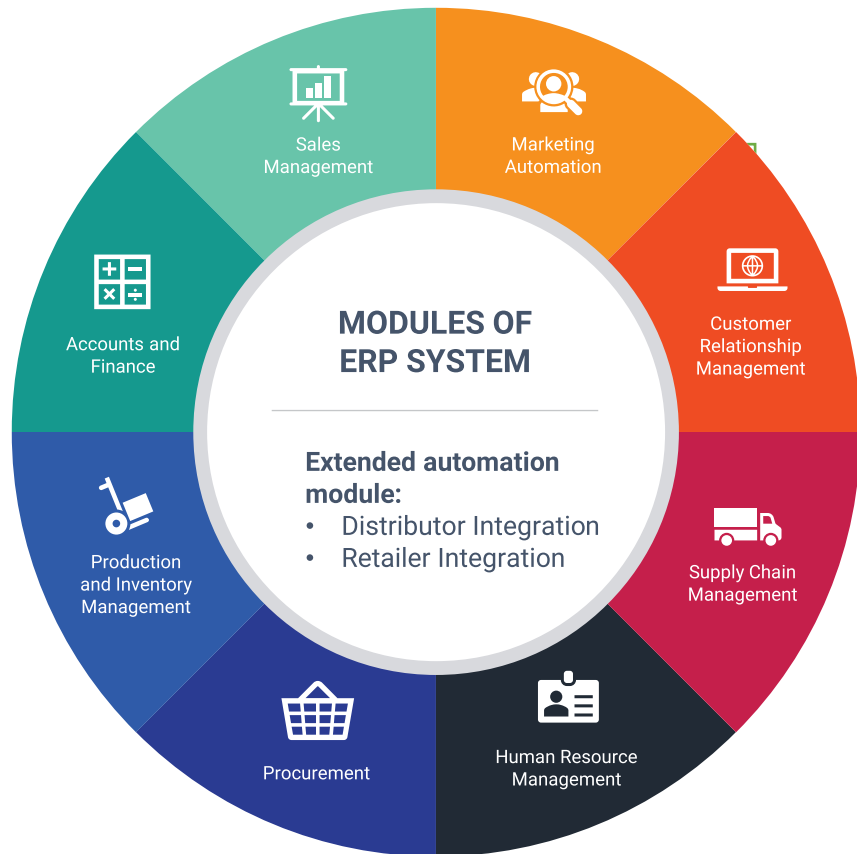
5.1 Stages of supply chain management process automation and time bound implementation roadmap

A full-scale ERP (Enterprise Resource Planning) system for a retail sale-based manufacturing company should ideally have human resource management module, sales management module, accounts and finance module, procurement module, production and inventory module, marketing automation module, customer relationship module, sales module and supply chain management module.

For a company standing at ground zero of automation, it is recommended to automate the basic HR and accounts modules first, followed by the sales channel. As sales provide the lifeline of the organization, any disruption in this channel will impact the core existence of the organization. So, it is extremely important to implement a digital transition with caution, through a phase-by-phase approach. At the same time, the deployed solution must be holistic and compatible with the long-term digital transformation strategy of the organization.

However, as soon as the sales automation system is

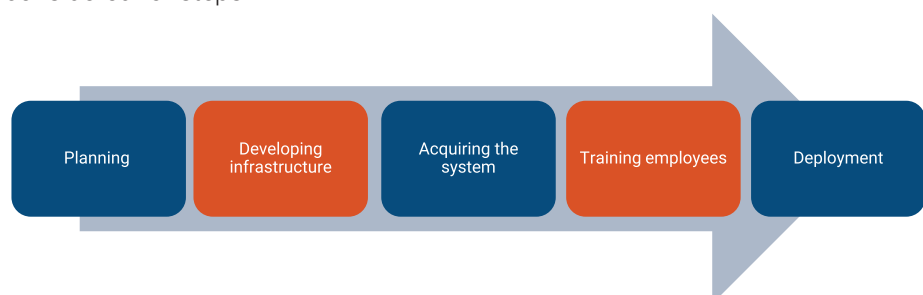
Figure 3: Common modules of a full-scale ERP system



implemented, the company should strive to bring in the distributors into the automation along with (at least) basic inventory management system to create a full visibility of the sales channel. These modules (HR, Accounts, and Sales) should be integrated with each other to form the backbone of an automated supply chain management system.

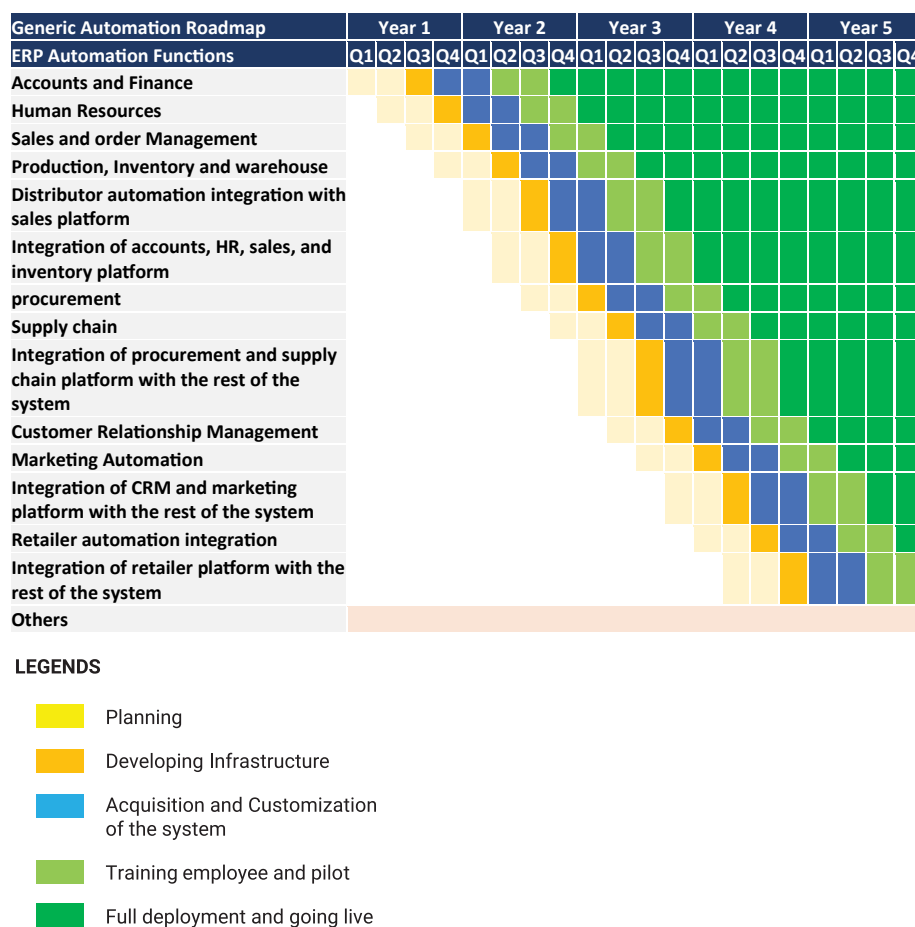
Once this backbone is created, depending upon the priority of the organization's operations, the FMCG company can take up modules like production and (advanced) inventory, supply chain or CRM in different phases. To complete the end-to-end digital transformation of the whole distribution supply chain and optimize control over the sales channel, retailers should be brought into the company's digital platform in multiple phases. The process of engaging the distributors and retailers should be initiated through small scale pilots. Based on the results of the initial experiments, full roll out can be executed with a tested approach.

Depending on the capacity of the organization, sufficient time should be considered for steps:



Considering these phases of each module implementation, the following software implementation plan can be suggested:

Figure 4: Generic supply chain automation implementation roadmap



This outline shows the common steps a company should consider; however, implementation strategies may vary from company to company based on their organizational capacities and field realities. According to the above roadmap, it is possible to automate an FMCG company's all operational processes within 5 years. However, it is important to note here that the above timeline and software implementation plan is provided for generic understanding and reference only. Each company should carefully assess their internal requirements and priorities first, and then align their customized digital transformation vision before utilizing this generic roadmap. The tenure of each of the implementation phases will depend on the company's internal HR capabilities, financial strength and bandwidth to manage an automation program. This tenure will also significantly depend on whether the company wants to go for inhouse development, or procuring a standardized software and then customize it, or taking a SaaS service.

It is evident from the successful digital transformation initiatives that such transitions require years of hard work, coherent planning and step by step roll-out to attain the intended benefits. To ensure due attention and effort, creating a dedicated team to anchor the digital transformation project is a must. It is also crucial to assign change agents across the organizations in every department and ensure cross-department collaboration throughout the implementation process. Successful path to transformation always shaped by the changemakers leading the effort, choosing the right technology is one key milestone of this entire journey only.

5.2 Software implementation process

Generic supply chain automation implementation roadmap shown in Figure 4 demonstrates that it is possible to bring a company under full automation within 5 year's time. However, this timeline is strongly dependent on how the company will manage the implementation of each module/ function (e.g. Accounts, HR, Sales etc.). Depending on the structural and HR readiness, a company can expedite or take extra time to implement the automation process.

Just like any other automation process, implementing a single module to automate a particular function also requires multi-level phase by phase deployment. The implementation process of a single module can be divided in the following basic phases:

Figure 5: Stages of supply chain automation



Depending on the size and complexity of the project and organization, the above steps will require a significant level of direct (i.e., financial) and indirect (i.e., time and human hours) investment to complete. The following are the details of each phase:



Phase 1 - Planning:

Before taking up an overall automation journey, an FMCG company has to identify its own requirements and goals before it decides to automate a function. The company's top and mid-level management must outline clear objectives and intended benefits they expect to achieve from the deployment of the digital platform. Based on this outline, the company will set the software feature requirements, talk to potential vendors/ service providers, decide on the method of purchase, and prepare a budget for the end-to-end software implementation phase. Depending on the size and complexity of the planning process, it might take months of planning for a team to reach the next level of implementation.

The most common mistake a client company makes in this phase is they only consider the software acquisition cost as the total project budget. As a result, often the project falls short of required financial and human resources in the middle of implementation. Many companies also look for a solution on an ad-hoc basis due to the absence of a long-term digital transformation strategy. So, during the planning phase a company must devise a comprehensive digital transformations strategy (this is applicable both for the whole company automation as well as specific modular automation drive), identify what level of financial and human resource investment will be required throughout the process to make the initiative sustainable.



Phase 2 - Developing technology infrastructure:

An FMCG company needs to invest in developing or acquiring the infrastructure based on which the software will operate to achieve its intended targets. For a client company, the infrastructure cost can be the cost of development of well-defined and streamlined processes, acquisition of hardware (e.g., mobile devices, printers, laptops, PCs etc.), securing internet connectivity, etc. Without required technology infrastructure, acquiring only the software will not bring in any result.



Phase 3 - Acquiring the digital platform:

A company can take one of the following options while acquiring a digital platform:



Develop an inhouse solution:

FMCG companies can develop their own software by engaging own or outsourced developer team. This arrangement makes sense if such a system is not available in the market or the companies processes are too different compared to the industry's common practices, or no compatible existing solution is available in the market. This is apparently the most expensive way to develop a solution, and the riskiest in terms of achieving intended targets within the planned timeline as well. It also requires the highest timeline to go live, simply just because it is being developed from scratch. Depending on the scope of the software, quite frequently, this type of projects can linger for years and take further time in successful deployment.

Developing a company's own digital platform from scratch fails quite frequently, unless the top and mid-level management both have a clear idea and outline of the final product and well-defined strategies of how they will implement it. Successful roll out requires either a very strong technology team within the organization, or support of a highly efficient technology service provider firm where the company needs to assign a dedicated team for strong coordination.

Quite frequently, these become never ending projects and fail to meet milestone goals as the company management just continues to increase their expectation once the development starts. Afterwards, accommodating any major change in features of the platform also becomes very difficult, as a significant amount of investment has already been made for developing such a solution. Depending on the size and complexity of the project, with internal resources the project cost might start from a few million BDT and go beyond BDT 10 million for a comprehensive and stable version. However, this platform will still require further customization to match client's advance level requirements.



Purchase prefabricated/ standardized software:

The companies also have the option to purchase a prefabricated platform and customize it as per the company requirements. This is a very feasible option for the companies having a large field force. Under this method, companies choose a standardized platform and customize their specific requirements on top of the existing features (or fine tune them as per requirement). This method has proven to be a cost and time efficient option as they can acquire the software at a much lower price compared to the cost of developing it from scratch.

This is an implementation friendly option as well. The software provider organization is more likely to have previous experience of implementing the solution in similar customer segments. In this method, the FMCG company purchases the whole platform and gets into an annual maintenance contract with the service provider. The cost of switching the system is comparatively high considering the large investment that client company has made to acquire this

software. So, the suitability of the platform in the long run for the company has to be meticulously assessed during the procurement phase.

Depending on the feature and maturity of the product, the platform cost may start from as low as a few million BDT (development and implementation) with 20-25% annual maintenance charge (of the final project cost). The software service provider should take care of the overall server maintenance, software integrity and uptime under the Annual Maintenance Contract (AMC) arrangement. Under the AMC, the software service provider will ensure system up time and fix any bugs that may come across during the contract period to ensure smooth operations of the system. However, this AMC is not mandatory, and some companies choose not to follow the service provider. In such cases, any difficulty at the software end after the warranty period is likely to take much higher time to solve and might hamper the core functional operations.

In case of cloud hosting of software, additional cost will incur to host the software; that might start from as low as a few thousand BDT per month. However, this figure will gradually rise with the increase of historical data storage capacity and may reach six figure (and above) amounts in BDT per month.



Use a third-party SaaS platform:

Over the last decade, the SaaS (Software as a Service) model is getting more and more popularity. Under this arrangement, the FMCG companies use a third-party platform on a rental basis and pay according to the number of users only. This model is gaining popularity among the customers as it requires the FMCG company to incur minimum upfront cost in availing the solution, afterwards the client pays only based on the number of users. This is extremely efficient for managing low to medium sized field forces. In this method, the companies can use the best available technology with minimum Capital Expenditure (CAPEX) as well as Operational Expenditure (OPEX). Also, the exit cost for the client is lowest in SaaS based models, as the clients can switch service providers at minimum expense, time, and hassle.

Under this model, the client organization pays a small implementation fee followed by monthly subscription fee. The implementation fee for a team of 100 members can be around BDT 150,000 (one time, variable depending on the service provider charging model) in the Bangladesh market. The subscription fee for a team of 100 members will cost approx. BDT 50,000 per month (approx. BDT 600,000 per year) for the whole team with full software features.

Acquiring local software in all the above cases generally prove worthier than purchasing foreign software. Apart from cost advantages, the platform service provider needs to be able to provide quick on-site support as the field level staff require constant hand holding at the initial period. Also, the local service providers are more aligned with the local FMCG challenges and require much less fine tuning in the system compared to foreign counterparts.



Phase 4 -Training employees:

Interestingly, success of a digital platform is not technology driven; it largely depends on the acceptance of the people within the organization. Adoption of a new digital platform requires changes in work culture and previous conventional practices. Thus, on one hand it is crucial to adopt an appropriate platform which enables employees to efficiently manage their regular business operations. On the other hand, it is highly important to enhance capacities of the employees so they can optimally utilize the new platform. Proper assessment of employee capacities and designing appropriate training are integral part of successful deployment of a new software.

Often a portion of employees resist change in the status quo, so a clear direction and motivation from the senior leadership is mandatory. The training generally should take a theoretical approach followed by practical hands-on application. Depending on the complexity of the solution, training, re-training, re-re-training, and a hand-holding support might be required for the users across different levels of the supply chain, to make them well conversant with the system. Apart from that, every new feature development and improvement will require refresher courses. The best approach to deal with this requirement is to create several in-house experts on the software and use them as trainers, instead of depending on the service provider for the same.

While promoting the adoption of digital platforms among the external parties (i.e., distributors/ retailers), making them understand the benefits and incentives are essential to begin. The approach should be different for these segments, as these stakeholders are not direct employees of the companies. It will involve behavioral change attempts for the last mile supply chain actors which requires significant attention and willingness of the company staff. Companies need to consider the digital literacy and technology usage capacities of those supply chain actors and design the training schemes accordingly.



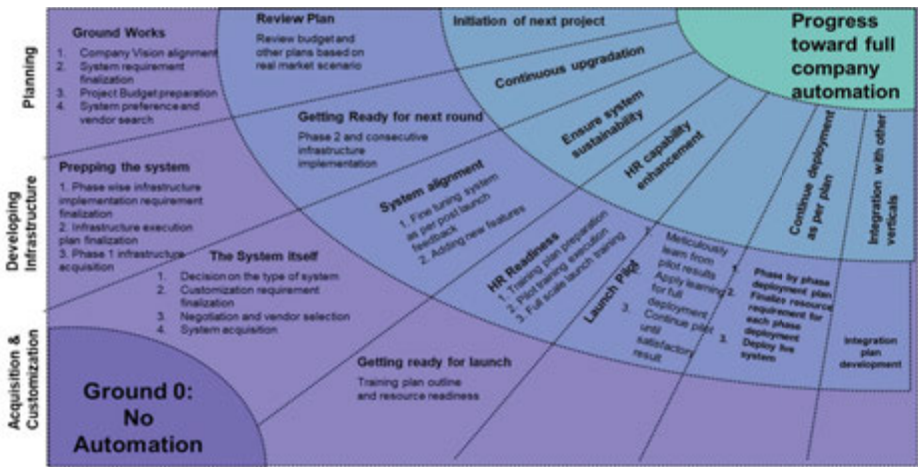
Phase 5 - Software deployment:

A phase that is commonly overlooked by the clients is the solution implementation phase and ensuring continuity of the software. Upon training (part of the extended implementation phase) the relevant users, the company must ensure that everyone is using the system as required. In this phase, the old and new system needs to be run in parallel to ensure that the new system supports to achieve the intended output. Often this phase puts double workload on the users. If this phase is not managed effectively, the users might lose their energy to follow-up both sides of the work and continue to take extra workload to make the automation project a success. The company has to commit to deploy adequate human resources for training, re-training, and hand holding support of the users until the software runs smoothly across all layers of the supply chain. Practically this is the phase where many automation projects fail in most of the cases.

To make the deployment phase successful, the FMCG company must reinvigorate an automation friendly culture. The top management must create a positive energy across the organization so that the employees become motivated (positively or negatively) to participate in the implementation process. Even after implementation, in many cases, the company must periodically add new features in the software as the user demand evolves after they get used to the software. Maximizing the efficiency and effectiveness of the software by streamlining the processes is a continuous task that also needs to be carried out. To get the best result, a business process management team can be established which will continuously look for improvement areas in the system and implement changes to improve efficiency in the process.

The below diagram shows a generic software module implementation plan over a three-year period:

Figure 6: Stages of a generic software module implementation



If adequate financial, technical, and human resources are deployed, a company standing at ground zero of automation can progress toward full automation of supply chain management processes within 3-5 years in the Bangladesh context. It may take longer for small and medium size companies with limited resources and technical capacities. Companies should outline their strategy and implementation timeline based on their respective needs and capacities, ensuring the automation process does not create pressure on its core business resources, risking its cash flow and revenues.






CHAPTER 6: STRATEGIES TO PROMOTE DIGITAL PAYMENTS AND CREDITS IN THE FMCG SUPPLY CHAIN

6.1 Incentives for digitizing supply chain payments for various actors

Currently no end-to-end digital payment solution exists in Bangladesh's FMCG supply chain which integrates all the layers of distribution e.g., FMCG companies, their distributors and last mile retailers, as observed in our market scan. Companies settle transactions with the distributors through banks, distributors collect cash payments from the retailers through field staff. Customer payments to the retail merchants is also cash based. Payment and financial reporting processes are managed in silos across different layers of the supply chain. Existing mobile payment solutions are generic in nature, mismatch between the specialized needs of these supply chain actors and features of the existing digital payment products is evident. That is why the uptake of digital payments in this supply chain is low, even though the overall uptake and usage of MFS grew significantly in the last decade in Bangladesh.

The motivation and incentives to digitize payments vary for different actors in this supply chain. While developing an end-to-end digital payment solution which can accommodate the needs of the key actors in this supply chain (e.g., FMCG companies, their distributors and last mile retailers), a financial service provider must consider this issue.

Key motivations of different supply chain actors in digitizing supply chain payments are briefly presented below:

Supply Chain Actors	Key motivations for digitizing payments
 <p>FMCG Companies</p>	<ul style="list-style-type: none"> • Quickly and conveniently settle payments from the distributors, reducing existing lag time in payment reconciliation • Improved financial reporting, payment reconciliations processes and integration with stock ordering, invoicing, inventory management and delivery tasks through digital supply chain management platforms • To better manage and transparently settle promotional offers, discounts etc. for the distributors and retailers • Generate data regarding sales and payment behavior of distributors and retailers to better understand their sales pattern and financial strength • Exploring scopes of jointly developing and facilitating credit products for distributors and retailers to ensure their loyalty to the company in the long run
 <p>Distributors</p>	<ul style="list-style-type: none"> • Improve efficiency in payment collection processes from the retailers, reducing TCV (time, cost and number and visits) of field staff involved in the payment collection process • Get the benefit if real time deposit into distributor's bank account from the retailers, reducing lag time in payment collection cycle and improving the cash flow • Increasing transparency and visibility of the payment collection process of field staff reducing the requirements of micro-monitoring and manual paper based reporting • Reducing the burden of manual paper-based reporting for field staff • Minimizing the risks of fraudulent practices of misreporting, late deposit and stealing cash etc. of the field staff • Reducing cash carrying risks, loss incurred due to fake and damaged currency • Better access to credit for the distributors, utilizing generated data from the digital payment collection process • Better understand and analyze retailer's sales pattern and transaction behavior, to identify scopes of sales growth and increasing retailer's loyalty through customized promotional offers, credit arrangements, discounts etc.
 <p>Retailers</p>	<ul style="list-style-type: none"> • Enabling the retailers to digitally manage their sales records • Better understand and manage the finance, profits/ loss, product specific profit margin etc. based on efficient record keeping • Generate bankable data which can be utilized by the financial service providers in credit scoring and offering targeted low cost credit products • Enhance access to formal financial services for the retailers • Reducing cash carrying risks, loss incurred due to fake and damaged currency • Enable to support local customers being an agent point of various digital financial services, contributing to additional income obtained from the commissions • Enable the retailers to utilize the same digital account/ wallet for bill payments and various P2P, P2B, and B2B transactions

While developing digital payment products for these supply chain actors, their varying needs and motivations to uptake digital payments must be taken care of.

6.2 Designing an end-to-end digital payment solution

Findings of our assessment suggest banks are in a better position to digitize payments and credits for FMCG supply chain actors, given the current market context and regulatory scopes. Banks which have introduced agent banking services and mobile accounts/ wallets have greater outreach to the last mile customers through these multiple channels. Banks are the corporate finance providers for the FMCG companies and major source of credit for the distributors as well. Transactions between distributors and the FMCG companies are settled through bank accounts. Building on existing client relationships, bank led solutions have higher probability of reaching the last mile retailers.

Few banks have introduced digital wallets tapped with bank accounts for the FMCG retail merchants, also deploying the merchants as their last mile agents for those platforms. For example, Bank Asia has introduced a digital wallet for micro-merchants, linked with a bank account. They are also deploying merchants as their last mile agent points. This model is encouraging retail merchants to uptake digital financial services, as it enables them convenient access to various payment and banking services. It also contributes to their additional income earned from the commissions earned as an agent, through facilitating various bill payments, deposit collection, remittance disbursements, social safety net payments to designated recipients etc. To promote uptake adoption of digital payments among the retail merchants, financial service providers should not consider them only as users. This segment can be also deployed as a last mile agent network who can offer various services to their customers in rural communities as well, thus enhancing the business prospects for banks and enabling them to expand their rural customer base. Availability of agent banking services in rural areas is also facilitating easier access to various services for the distributors and retailers. Though the roll out is currently at its initial phase, considering the multi-channel footprints already laid out, bank led products have higher potential of success in this supply chain. Bank led products have to offer scopes of integration with company/ distributor's ERP/ DMS systems, so the reporting tasks are conducted efficiently with the help of digital platforms.

In comparison, uptake of MFS wallets for supply chain payments is low due to the existing cost structure. Retailers and distributors are not gaining significant benefit in terms of efficiency, given the costs incurred. Bearing 1.5% to 1.85% transaction costs is not business viable for the distributors and retailers, as for many product segments the profit margin is between 1-3% for these actors. At the same time, reducing transaction commission significantly is challenging for the MFS operators, as reported by the stakeholders consulted in this study. The key reason is that the MFS network is highly agent driven in the field, significant portion of the commission is shared with agents to retain the agent network which is ultimately reflected in the cost structure.

In this context, MFS providers have two options to move forward- (i) partnering with banks to jointly develop low-cost solutions where MFS wallets will be tapped with bank accounts and serve mainly as payment wallets for both retailers and distributors, enabling users to access multiple channels (i.e., agent banking, ATM, MFS wallets and MFS agent networks etc.) or (ii) significantly reduce cost of transactions, develop customized payment solutions and promote in this segment. In both cases, MFS providers must give options to the companies and distributors so they can easily integrate payment collection processes with their ERP/ DMS platforms and efficiently manage financial and supply chain reporting tasks.

Penetration of PSP/ PSO led wallets are also low in this segment. PSPs can explore this supply chain as a new frontier, partnering with banks if they can come up with appropriate products. Payment aggregator platforms anchored by the PSOs playing a crucial role in facilitating digital payments in the e-commerce segment. Expansion of e-commerce and emergence of digital customers will increase the significance of these payment integrator platforms. A few PSP/ PSOs are currently assessing the business case of developing joint products with FMCG companies and banks as suggested by the PSP and PSO stakeholders interviewed in this study. If they can come up with appropriate bank led products, there is potential to expand their customer base in this segment.

To promote digital payment solutions, FSPs have to clearly pitch the efficiency gains to FMCG companies, distributors and retailers. Though the FMCG supply chain stakeholders are aware of the convenience of digital payments, often they cannot perceive the monetary loss and benefits obtained in terms of saving TCV clearly, which leads to the unwillingness to adopt the apparent transaction costs of digital payment platforms. Promoting digital payments will also bring change in supply chain management practices, which will require capacity enhancement and change of culture within the organizations. FSPs designing digital solutions have to acknowledge these issues and support FMCG companies, distributors and retailers undertake those transitions smoothly.

In overall, an end-to-end digital payment solution which can fulfill 360° needs of different actors in this supply chain is yet to be innovated. Based on our assessment, banks have a better business case to lead these solutions, as currently they manage most of the payments and promote credits to two major actors- FMCG companies and the distributors. To reach the untapped last mile retailers, banks can utilize multiple channels such as agent banking networks, mobile banking wallets etc., or partner with MFS providers and PSP platforms, whichever appropriate. Local technology service providers and FinTech innovators should also explore potential product development opportunities as well, through which financial service providers can overcome existing barriers of reaching the last mile retail merchants in a cost-effective manner. Following features should be considered while developing a digital payment solution for the FMCG supply chain actors in the current context:



An end-to-end digital payment solution must consider the differences in transaction volume, average amount and frequency across different supply chain actors, accommodate their varying payment and transaction needs



Transaction costs must be feasible for distributors and retailers, considering the low percentage of profit margin of several product segments



The payment platform should make notification, reporting and payment reconciliation processes integrated with the ERP/ DMS platforms



Must generate usable data for all the supply chain actors which they can analyze and utilize for informed business decision making and accessing credit services



The platform interface/ mobile application should enable easy navigation for the last mile field staff and retailers with low digital literacy

6.3 Promoting digital credit for FMCG supply chain actors

Adoption of digital payment solutions will create enhanced opportunities for digital credit offerings targeting the FMCG supply chain actors. Especially the micro-retailers are a heavily underserved client segment in this supply chain. If bank led payment solutions can incorporate the retailers, developing targeted credit products will become easier utilizing the transaction data generated through payment platforms.

Recently banks and MFS providers are piloting a few initiatives of digital micro-lending for the micro and small enterprises. For example, City Bank Ltd. and bKash have jointly launched piloting of digital loan for micro and small enterprises in 2020. Micro loans ranging between BDT 500 to BDT 10,000 are offered for a maximum 3 months tenor with 9% annual interest rate, interest is calculated on a daily basis for the borrowers under this scheme. Financial service providers should critically assess the outcomes of these initiatives and try to innovate more micro-lending products for micro-merchants.

A limitation of MFS platform is that MFS providers cannot offer credit in the existing regulatory framework, they can act as disbursement/ payment collection channels for the credit suppliers. On the other hand, the cost of reaching out to retail merchants is very high for the banks operating through traditional branch based 'brick and mortar' methods. So, banks can utilize the widespread agent network of MFS providers and design products partnering with them. It will enable both the parties to reduce costs and offer credit products to the merchants in low interest rates.

As 68% of the merchants borrow from Microfinance Institutions, there is a huge scope of formulating similar partnerships between the FMCG companies, banks, MFIs and MFS providers. MFIs have strong client relationships with small scale retail businesses, new digital credit platforms can be innovated through utilizing their historical data and knowledge. Introduction of digital channels will also help MFIs to reduce operational cost, ultimately benefiting the micro-retailers having access to low interest credit products.

Banks and NBFIs are currently the major supply chain finance providers for the suppliers and distributors of FMCG companies. Several digital innovations have been introduced in this segment in recent years, such as blockchain based supply chain financing promoting Purchase Order (PO) factoring, invoice financing, reverse factoring etc. Technology based supply chain financing products have improved efficiency both for financial service providers and the FMCG clients. These initiatives have reduced risks for the financial service providers, decreased documentation related hassles for distributors/ suppliers and ensured they are better served with timely credit whenever required. Now banks and NBFIs have proposed to design policy guidelines for introducing a digital marketplace for supply chain finance in the country. Bangladesh Bank is now working on the proposed guideline for this new platform, where FMCG companies, financial service providers and other authorized institutions will be able to participate and co-invest. Suppliers and distributors will be able to access credits more efficiently from this marketplace.

Digitizing the supply chain ordering and payment collection processes of distributors from the retailers will help banks and NBFIs better understand the sales trends, payment behaviors and risks for distributors. Digital invoicing can be also another crucial source of data which can be utilized for innovating dedicated credit products for the distributors. Thus, digital transformation of FMCG supply chain operations and payments will enable financial service

providers to promote digitally enabled supply chain finance products built on market data for the FMCG distributors and suppliers and offer lower interest rates.

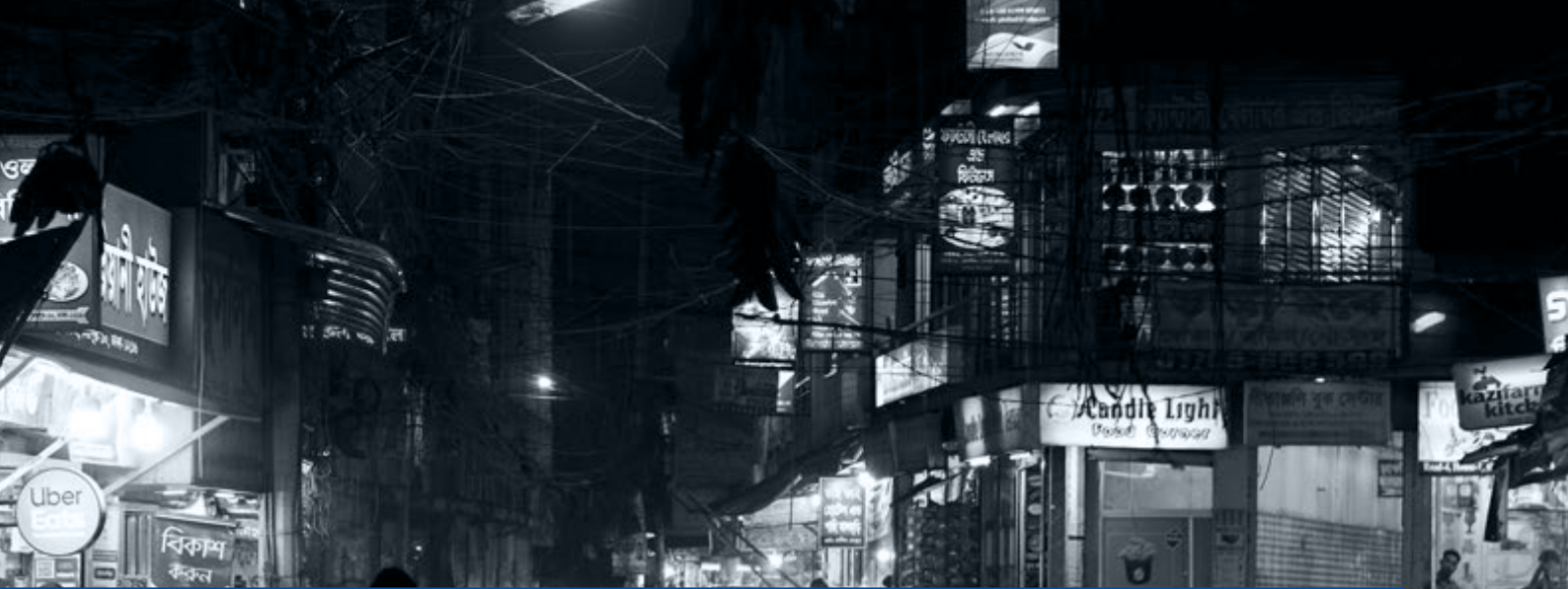
While providing corporate finance for the FMCG companies, banks/ NBFIs can also offer to take the responsibilities of managing the credit these companies internally offer to their suppliers/ distributors. Some FMCG companies do not provide any credit to their distributors, so this model won't be applicable for them. Companies which provide credit to the distributors for a certain period (usually 1-4 weeks) can hand over the task of credit management to a bank/ NBFIs. Bank/ NBFIs can plug in their supply chain finance products and manage the repayments and reporting on behalf of the company. Digitization of supply chain management and payments will largely contribute to introducing this type of corporate solutions. In this case the banks/ NBFIs will automatically have an expanded new client base of all the suppliers and distributors of an FMCG company across regions through corporate agreements, who are currently taking credit support from multiple banks/ NBFIs according to their own arrangements. Banks/ NBFIs should explore to promote this type of tri-party partnerships with FMCG companies and their distributors.

Emerging digital startup led innovations are also opening new frontiers of digital transformation in the FMCG supply chain. For example, ShopUp has introduced MOKAM, a digital B2B marketplace where FMCG distributors, wholesalers and retailers can transact. ShopUp is enabling complete logistic support for delivery and providing credit support for their clients partnering with banks and NBFIs. They have introduced Artificial Intelligence (AI) based identity verification mechanisms for opening accounts and Know Your Customer (KYC) processes. Their platform is utilizing generated data to further develop credit products for distributors and micro-merchants, also formulating new partnerships with large FMCG companies in the country. They are also integrating MFS wallets in their platform. This type of integrated digital marketplaces/ FinTech led platforms can bring innovative solutions for the FMCG supply chain actors to better manage their overall supply chain operations and finances.

Digitization of supply chain payments till the last mile will open new frontiers of product innovation for the financial service providers. The steppingstone is to design and promote appropriate payment solutions for this segment. FMCG stakeholders are aware of the benefits of adopting digital payments, so it is high time now that the FSPs accelerate innovating and introducing suitable products. Once the adoption of digital payments grows in the supply chain, it will unfold further opportunities of digital credit offering, marketplace innovation and utilization of bankable data in mitigating risks. Innovation and adoption will complement each other in those phases. The responsibility of kick-starting this revolution relies on financial service providers and FinTech innovators.

**DIGITIZATION OF SUPPLY
CHAIN PAYMENTS TILL THE
LAST MILE WILL OPEN NEW
FRONTIERS OF PRODUCT
INNOVATION FOR THE
FINANCIAL SERVICE
PROVIDERS.**





CHAPTER 7: INVESTMENTS REQUIREMENTS FOR ADOPTION OF DIGITAL SUPPLY CHAIN MANAGEMENT VIS-À-VIS ESTIMATED BENEFITS

7.1 Estimated Investment Requirements for building digital infrastructure and acquisition of digital platforms

Before analyzing the investment requirement for adoption of a digital supply chain management platform, some assumptions need to be established first. These assumptions are derived from the industry practices in automating the sales forces of FMCG and other industry value chains.

The first step is to map, define and document the business processes while transitioning towards full automation of supply chain operations from a manual process. In many cases, deployment of digital platform first requires realignment of some process across different supply chain layers.

Introducing digital transformation in the supply chain is not a technology centered process only, it involves cultural change and investment in capacity enhancement of staff within the organization. Most of the organizations' automation drive fails not because of technical issues, but for failure to manage and motivate the cultural change. The automation that was introduced to improve efficiency, will result in deadlock and cause loss of financial resources and human efforts if not managed properly. Unfortunately, many organizations give more attention on acquiring the technology solutions and deploy less effort on preparing the organization to adopt the change and optimize the benefits.

Successful adoption of a digital platform requires building necessary technology infrastructure. It is necessary to equip the sales team members with internet enabled smartphones/ tablet devices. For best result, an organization has to equip its distributors with necessary digital infrastructure as well. Equipping the distributors usually comes in the second phase of automation after the company's own sales team members are well equipped and well conversant with the system. Also, equipping each of its distributors with necessary digital infrastructure and training their staff to use the platform is more challenging, as the company does not have direct control on distributor's staff. Level of motivation and incentives may not be the same for all the supply chain actors as well.

Usually, an organization takes a few years of automation drive to complete automating a channel. Therefore, the estimated numbers mentioned here and the investment requirements mentioned in other parts of the report will not be required to pour in at a go, rather investments are required in different phases as per the

implementation plan and capacity of a particular organization.

Given that an organization's supply chain management is 100% paper based manual system, the sales team has to be first equipped with internet enabled smartphones. The supervisors will need laptops to monitor and receive reports based on the field level inputs. Once the sales team is equipped with required devices and access to the internet, the company should try to equip its distributors with digital infrastructure to get the maximum benefit of digital transformation. To get the best result, the distribution houses need to have Bluetooth enabled printers so that the SRs can order daily sales summary printouts directly from their mobile. The printer can also be used to print the delivery route plan. For best result, the distributor also needs to have a PC with internet connectivity to place inventory orders, check daily sales status, and receive inventory reports level automatically.

For a full-scale development of infrastructure from the scratch, a team of 100 might incur following costs:

Table 2: Estimated cost of building digital infrastructure within an organization

Step/Item	Unit and per unit amount (BDT)	Total amount (BDT)
Process mapping and development (It will vary based on the company size, operational processes, and scale of the digital transformation project. The software service provider can help in this regard and can be included in the software development cost)	-	-
Smartphone purchase for sales team members	85 Units @ Min. BDT 7,200/unit	* BDT 612,000
Bluetooth printers for distribution houses	approx. 85 Units @ BDT 17,700/unit	** BDT 1,504,500
PC for distribution houses	85 Units @ BDT 11,600/unit	BDT 986,000
Internet for distribution houses	85 Units @ BDT 229 per 1.5 GB/month	*** BDT 233,580 /year
Laptops for supervisors	15 Units @ Min. BDT 22,000/unit	**** BDT 330,000
Total		BDT 3,666,080

- * Estimated cost incurred during the first purchase. Replacement and repair of smartphones over years may incur operational costs
- ** Estimated cost incurred during first equipment purchase, maintenance of Bluetooth printers will require additional costs for cartridge and papers
- *** Recurring cost, may vary due to change of package rate from the operators
- **** May require repair cost and replacement after 3-5 years

In general scenario, the client organizations will have to invest from its own accounts for the distributors as well. Other than the major players in the market, very few companies have the required control over distributors as they are independent entities and are involved in distributorship of other companies' products as well. It is highly unlikely that a distributor will invest for a particular company's automation effort unless that company has a major stake in its revenue flow and thus is able to dictate its decision over the distributor. However, due to its

general purpose, the company may strike into an understanding with its distributors so that they purchase PC and internet connection at their own expenses. Assessing currently available packages offered by local DMS platform service providers, the price of such a solution in SaaS format with basic to advanced level features ranges from BDT 250 to 525 per user per month respectively. Considering a maximum cost of BDT 525 per user per month, a team of 100 users will incur the following service charges:

Table 3: Estimated cost of a DMS platform adoption

Cost Category	Number of users/ units	Total Cost
Implementation / Deployment fee	100 users X BDT 1500 per user	BDT 150,000 (one time)
Subscription fee	100 users X BDT 525 per month X 12 months	BDT 630,000 per year
Internet expenses	100 Units @ Max. BDT 229 per 1.5 GB per month	BDT 274,800 per year
		BDT 1,054,800 (in the first year of deployment)
		BDT 904,800 (recurring cost from second year onwards)

7.2 Estimated monetary value of supply chain inefficiency vis-à-vis ROI of digital transformation

Multi-faceted benefits and efficiency gains can be attained by an FMCG company through investing in digital transformation. Upon detailed analysis of FMCG distribution and supply value chain, following areas have been identified where the companies incur major inefficiency and system loss:



Salespersons leave early from the market to the distributor house in order to complete manual reporting, resulting in less time deployed in the field



Time and cost of sales report generation through mostly manual processes using a central HQ team



Significant staff time spent on daily manual report preparation



Cost of management inconvenience, requirement of micro-monitoring for the sales team management



Cost of paper-based receipt books to collect orders from the retailers



Cost of delay in management decision making due to the unavailability of real time data from the field



Cost of locating sales team members on a day-to-day basis, generally done by making random calls and BTS based tracking

Generally, for a medium sized FMCG company in Bangladesh, usually one SR is allocated for each of the distributors. However, the number of deployed SR increases as the operations and sales volume grow in a particular area. To estimate the cost of supply chain management inefficiency and potential ROI, our calculation is based on a team of 85 SRs and 15 supervisors (including senior management) (total sales team size 100). It is assumed that each SR is connected with a unique distributor, which means that there are 85 distribution houses in this scenario.

Upon detailed activity mapping with multiple FMCG companies, it has been found that every day around 2 hours are spent by each SR on travelling to and from the distributor house for morning meetings and day-end manual reporting. Additional 1 hour is spent on accumulating and reporting the daily sales data by each SR and supervisor respectively. Also, it has been found that each of the order book costs around BDT 50 that every SR uses for order collection and day-end reporting. In some cases, the FMCG companies use BTS based mobile phone trackers

to monitor the movement of SRs, the cost of which ranges from BDT 50 to 300 per user per month.

Considering that each SR's and Supervisor's average salaries are BDT 15,000 and 25,000 respectively, and assuming that each SR collects 25 orders per day following estimation on the cost of inefficiency has been made. It is also assumed that 10% of the system inefficiency occurs at the HQ reporting team. The inefficiency at HQ reporting takes place due to the manual nature of data transfer from field level which includes cleaning data, clarification of data from source, and manual report generation by multiple human resources. Cost of management inconvenience, requirement of micro-monitoring for the sales team management and cost of delayed decision making is difficult to ascertain due to absence of appropriate quantifiable data.

The overall estimated monetary value of process inefficiency in the supply chain management for a 100 member distribution sales team is presented below:

Table 4: Estimation of supply chain inefficiency in monetary terms (in BDT)

Process Category		Yearly Inefficiency
Opportunity loss due to early leaving from the market		3,837,750
Reporting Loss		2,481,375
Order Book cost		371,025
Tracking cost		51,000
HQ reporting cost		674,115
Management inconvenience and time value incurred due to micro-monitoring	Not enough quantifiable data available to ascertain, varies from company to company	
Cost of delay in decision making	Not enough quantifiable data available to ascertain, varies from company to company	
Estimated amount of the annual monetary value of process inefficiency for a 100-member distribution sales team		BDT 7,415,265++

Against this estimated amount of annual monetary value of process inefficiency incurred by a company, we have presented tentative costs of acquiring a SaaS based DMS platform in Bangladesh context is around BDT 1,054,800 in the first year of deployment. The cost of continuing a DMS platform from second year onwards is around BDT 904,800.

Considering process inefficiency and time wastage cost of approx. BDT 7.42 million++ per year for every 100-member sales team; the automation process and building infrastructure will take only approx. BDT 3.67 million of fixed cost and take a yearly recurring cost of only BDT 0.91 million to avail the SaaS platform including mobile internet connectivity. Deducting the software subscription fee along with the internet expenses, (BDT 7.42 million – BDT 0.91 million), the automation platform should be able to save around BDT 6.51 million++ per year considering the existing costing model. This means that it should ideally take around 7 months to cover the fixed investment on infrastructure. It is also

noteworthy that the mentioned level of savings amounts to 36 SRs' full year's salary.

However, it is not practical to expect that the automation will bring out 100% efficiency nor it will be deployed with 100% capacity across the whole team from day one. Nonetheless, the numbers show that a significant level of operational efficiency can be achieved through automation of the supply chain management processes. This also proves that investing in process automation has a very high potential Return on Investment (ROI).





“

Successful adoption of a digital platform requires building necessary technology infrastructure. It is necessary to equip the sales team members with internet enabled smartphones/ tablet devices. For best result, an organization has to equip its distributors with necessary digital infrastructure as well.

”



CHAPTER 8: ANTICIPATED CHALLENGES AND RISKS IN THE IMPLEMENTATION PROCESS

Based on industry experience, following challenges and risks have been observed from the digital transformation of supply chain management projects undertaken in Bangladesh context:

1 Often companies undertake an automation project without defining objectives, scopes, and intended benefits. Due to this lack of clarity among the top and mid-level management, unrealistic expectations arise during deployment, ultimately leading to disappointments

2 No clearly mapped and documented work processes to automate, often companies decide to procure a solution without first mapping their internal supply chain management processes and then fails to align the software with their actual practices

3 Some companies do not give adequate time and resources in the planning phase, hastily try to move forward towards deployment expecting that adoption of the software will solve all problems

4 Lack of digital strategy, absence of comprehensive vision and long-term commitment of company's top leadership, resulting in bits and pieces of standalone software implementation; failing to optimize benefits of a holistic digital transformation

5 Trying to make the software adjust with the inefficient processes, instead of realigning management practices often contributes to retain the inefficiencies in the supply chain. Thus, the benefits of automation are underachieved

6 Failure to motivate the front and mid-level employees to properly learn the software platform operations, resulting in delay in receiving the intended benefits of the solution

7

Sometimes the leadership has no clear idea on the cost of the overall project, and initiates procurement **without assessing both short- and long-term financial commitments** in the process. Many small and medium sized companies then quit the project as they cannot bear the cost in the long run

8

Not aligning the channel partners (e.g., the distributors and retailers) in the automation drive, failure in clearly pitching the potential benefits for these actors, their scopes of participation and necessity of involvement

9

Too much dependency on the service provider for training, instead of creating inhouse experts to train internal resources

10

Often companies focus more on the cost of software acquisition, than on developing the infrastructure and other implementation stages. **Tendency of looking for the cheapest solution instead of investing in the most value adding one is also observed**, companies focus more on project cost reduction, rather than increasing ROI with appropriate platform

11

Failure to bring cultural change within the organization to ensure enthusiastic participation of the employees in the digital transformation process resulting in slow adoption/ potential rejection of the solution by the employees. Senior leadership also often overestimate employee capabilities to cope with the new system

12

Lack of focus on continuous improvement of the software, resulting in sudden obsolescence of the software after a few years, endangering the whole progress

13

Lack of focus on cyber security and digital data security, leading to potential corporate data and secrecy leaks

CHAPTER 9: STRATEGIES TO MAKE THE SOLUTION EFFECTIVE

Based on the assessment of the existing popular digital supply chain management solutions and key expectations of the FMCG companies and distributors from a digital platform, following issues should be considered by the technology service providers in the Bangladesh context while developing platforms:



The solution has to be **bilingual/multilingual**, enabling field staff and last mile retailers input information in Bangla will be helpful to ensure successful adoption of a platform.



The solution should enable all the major **features to be accessible offline**, as in remote rural areas often the internet connectivity is disrupted. The expectation of having a solution which provides real time SMS based notification/ real time upload and processing of the data/ image in the server may not always work considering the field realities of internet connectivity. Developing a platform assuming that the solution will be used where good internet connections are always available and accessible by the users might cause disappointment and failure in remote rural locations.



Adoption of a solution which works offline requires higher configuration smartphones/ devices (at least with 2GB RAM). While developing digital infrastructure and purchase of devices, these **configuration requirements must be considered**.



Staff of FMCG companies in the last mile have **low levels of education** (usually have high school education), their salary is also very low (BDT 10,000-12,000), so highly advanced and complicated technology solutions which requires high configuration devices/ smartphones may lead to low adoption and failure in deployment. Also the micro-retailers have limited education and technology literacy, so **simpler and easy to navigate solutions are recommended**.



User interfaces should require minimal writing during data entry, otherwise it would be time consuming and challenging for the field staff and retailers with low level of digital literacy and numeracy to successfully utilize the platform.



Technology service providers should not extremely lower the subscription fees to take advantage in competition for a certain period. Several firms have failed to sustain with this strategy and closed their solutions. Clients who invested in those cheaper solutions ultimately incurred loss after a few years when the firm closed its SaaS platform. So **sustainable pricing models should be offered** in the market by technology firms.

FMCG stakeholder have **highlighted requirements of following features** in a Distribution Management System, which the technology platform providers should consider:



SR Visit route plan



Real time employee tracking



Digital order collection from distributors and retailers



Retail outlet virtual inspection



Digital dues collection from retailers and distributors, payment reconciliation and reporting features



Product delivery management



Distributor/ dealer stock monitoring



Market survey and competitor activity monitoring



Streamlined reporting management



Distributor and retailer profile management



CHAPTER 10: RECOMMENDATIONS AND ACTION IMPLICATIONS

The research findings show a clear business case for the FMCG stakeholders, FSPs and technology innovators to invest in digital transformation of the FMCG supply chain. To collectively address the underlying barriers and accelerate digital transformation of the FMCG supply chain management and payments in Bangladesh, following recommendations have been made based for the relevant stakeholder groups:

10.1 Recommendations for the FMCG sector



FMCG sector business associations should **collectively formulate a national level digital ecosystem development strategy** to accelerate digital transformation in the FMCG supply chain. This strategy should clearly outline what support (technology innovation, capacity enhancement, concessional finance etc.) the sector stakeholders need from the FSPs, technology platform developers, the government and development partners for a time span of next 5-7 years to promote digital transformation in this sector. Development partners like UNCDF can provide technical assistance in formulation of the strategy.



FMCG companies should **partner with financial institutions and FinTech innovators** to pilot digital payment/ credit/ supply chain finance products. Without successful field experiments during the development stage, FSPs will not be able to design appropriate products for the FMCG supply chain actors. So FMCG companies must provide the scope of product piloting to the Financial Service Providers.



FMCG companies should **invest in internal capacity building** to initiate pro-digital cultural change within the organizations.

In overall, FMCG companies have to comprehend the business case of investing in digital transformation to enhance their competitive strength and resilience against market disruptions. They have to come out from the 'business as usual' attitude and adopt digital ways of doing business. It needs a change of mind set to begin with. FMCG companies also must engage their distributors, retailers, suppliers and other supply chain actors in this process and push adoption of digital platforms. If the facilitating role is not strongly performed by the FMCG companies, disjointed efforts with other actors i.e., the distributors/ retailers have least chances of success.

10.2 Recommendations for the Financial Service Providers



FSPs should **partner with FMCG companies and their distributors to develop end-to-end holistic digital payment solutions**, instead of separately targeting one actor e.g., the distributors or the retailers. Varying transaction needs, differences in the transaction size, volume, profit margins of all involved actors etc. should be considered while developing a payment solution. Cost structure must be accordingly customized for this supply chain clients. Bank led digital payment products have higher probability of success in the current context compared to the MFS wallets. An ideal digital payment solution should provide the user as many transaction points/ channels possible (e.g., bank branches, ATM, agent banking outlets, MFS agent points, MFI branches, mobile application, e-banking), so that users can conveniently access the nearest and cost-effective channel.



Digital payment solutions should **enable micro-retailers to act as last mile agent points** for various payment services for their customers in the community. It will contribute to increased income earned from commissions and encourage the retailers and their customers to transact through digital wallets.



Banks/ NBFIs should **develop low-cost digital transformation credit schemes** with concessional interest rates for FMCG supply chain actors, to minimize the financial resource gaps mid and small size companies face for investing in digital platforms. Such fund facilities can be bundled with corporate finance schemes/ supply chain finance schemes offered to the companies and distributors, accommodating the borrowers with adequate grace period, as deployment of digital platforms for a company standing at ground zero of automation takes at least 3-5 years.



FSPs should invest to **develop alternative credit scoring mechanisms** and analytics capacities to utilize the data obtained from digital payment solutions, leading to data driven customized credit product innovation targeting the FMCG supply chain clients.



Banks/ NBFIs should seek for **joint digital credit product development opportunities** partnering with the MFIs. MFIs are currently the major sources of formal credit for the micro-retailers, so digital product innovation utilizing these channels have more potential to be successful, as MFIs have strong customer relationships with the retailers.

10.3 Recommendations for the policy makers, FMCG associations and development partners



Taxation related fear factors among the distributors and retailers must be addressed strategically. As the distributors and retail micro-merchants do not want to create digital transaction trails to avoid income tax/ VAT payments, it might be a major barrier in adoption of digital payments in this supply chain. National Board of Revenue (NBR), Ministry of Commerce and other concerned agencies should **seek for solutions to address the fear factors regarding income tax and VAT issues among the supply chain actors**. Adoption of digital platforms and payments by the companies, distributors and retailers should be incentivized. Otherwise, uptake of digital payment solutions will not rapidly grow in this supply chain.



Development partners can provide **technical assistance and seed fund/ grants/ soft loans to the FMCG actors**, enabling them to pilot digital supply chain management and payment solutions in partnership with FSPs and technology service providers. Early-stage success cases can be demonstrated through these digital transformation pilots, to encourage other FMCG companies to invest in similar initiatives.



Capacity development initiatives can be designed for small and medium size FMCG company's management/ staff, to equip them with necessary knowledge required for successful digital transition. FMCG associations, concerned government agencies and development partners can jointly develop these initiatives.



Innovation fund facilities to **support local technology platform developers and FSPs develop new platforms and payment products for the FMCG supply chain actors** can be established. Such initiatives can partner with Bangladesh Government's ongoing programs undertaken by the ICT Division, Startup Bangladesh, Digital Finance Innovation Lab etc. to bring together technology innovators, FinTech companies and formal financial institutions to jointly develop solutions for the FMCG supply chain.



Bangladesh Bank, FSPs and development partners can **jointly establish 'FMCG Sector Digital Transformation Fund' facility** to offer low-cost credit to the companies and distributors for building digital infrastructure and acquisition of digital platforms. This fund facility can offer credits to the FMCG companies and distributors in concessional interest rate with an accommodative grace period, minimizing the financial resources gap faced by small and medium size companies in implementing digital transformation initiatives.

GLOBAL AND LOCAL EXAMPLES

Digital innovations in the FMCG supply chain: Examples of two global solutions

A couple of relevant global examples of solutions are highlighted for their unique supply chain operations and payment digitization features, similar solutions can be promoted by Bangladeshi technology service providers and payment operators which have high relevance for local FMCG supply chain actors.



JAZA DUKA (Kenya)

JAZA DUKA (Swahili for “fill up your store”), a digital working capital platform promoting access to finance for small merchants and distributors, enabling them to boost their sales and grow businesses. Unilever partnered with Mastercard and Kenya Commercial Bank to launch this platform in Kenya in 2018. The initiative utilizes distribution data from Unilever, analyzed by Mastercard, on how much inventory a store has bought from Unilever over time. The analytics is used to provide micro-credit eligibility recommendations to Kenya Commercial Bank (KCB), solving the gap of formal credit history or collateral requirements by banks. As a result, small merchants can access suitable credit products, enabling them smoothly operate and grow their businesses.

The registered merchants are also given the opportunity to further build their businesses through financial and merchandizing trainings and a provision to digitize their payments through Masterpass QR.

Impact of payment digitization

- **Increased revenue:** The program has led to 20% growth in sales orders to the supplies
- **Stronger business relationships:** 60% of the stores' stock orders on credit as merchants expand their stock purchases for increased sales and customer footfalls
- **Improve robustness of sales data:** enhancing data generation that facilitates better understanding of its distribution network and small retailers

Strategic steps to achieve success

- **Dynamic partnership capitalizing strength of multiple partners contributed to the success of the initiative.** At Jaza Duka, Unilever provides access to merchant networks, KCB undertakes credit assessment and extensions, Mastercard provides analytics, facilitates digital payments and manages the program.
- **Devising constructive, long-term value proposition for merchants.** Jaza Duka allows merchants to increase their purchasing power of Unilever products, KCB shares local expertise, assist account opening, and establishes credit based on history of Unilever product purchases. Credits are interest free for 17 days with 3.5% charges per month after.
- **Enhancing user experience to increase merchant retention and build positive habits.** Migrating from cash to digital requires fundamental change, which requires all partners to identify opportunities to continuously enhance user experience. Supportive capacity building training and user-friendly solution contributed to quick uptake of the solution among the target groups.



RED QUIBO (Mexico)

Red Quibo, a joint venture between Grupo Bimbo (one of world's largest bakery companies) and Blue Label Mexico, works with Visa Inc. and Citibanamex to provide a platform for digital payments to retail merchants. This digital payment platform enable the merchants to offer various services like selling mobile airtime, receiving bill payments and accepting digital payments from their customers. This is helping merchants to increase their income, enabling rural consumers access various digital services and strengthen business relationships between Grupo Bimbo and their last mile retail merchant networks.

Impact of payment digitization

- ✈ **Increased revenue:** Participating Grupo Bimbo merchants had 20-30% growth in revenue over time earned through offering various digital payments and services to their customers.
- ✈ **Stronger business relationships:** Red Qiubo and Grupo Bimbo helped the merchants to increase and diversify their revenues, as customers can now also access various digital payment services through the retail merchants. It has contributed to strengthen relationships between retail merchants and Grupo Bimbo.
- ✈ **Helped to build the digital ecosystem for small retailers:** Grupo Bimbo promoted dynamic partnerships with different financial service providers. Visa Inc. supported awareness campaigns, program implementation, and training for staff and participating Grupo Bimbo merchants. Citibanamex opened the accounts and facilitated transitions to the platform. Fincomun assessed merchants' credit profiles and extended credit. All these initiatives collectively supporting to build digital ecosystem in the rural level.



FieldAssist (India)

FieldAssist, a flagship SaaS platform conceptualized by Flick2Know Technologies in India, helped over 400 brands worldwide to increase their sales efficiency and productivity with the use of mobility. Currently, they have 103,200 Stock Keeping Units (SKUs), 50,000 users and 4.5 million unique outlets. Tagged as the "All-in-Once Sales Force Automation Software," it is the central canvas to catalyze empowerment of field sales teams and power smarter sales decisions; aiming to push growth both in the short and long term.

Key features of FieldAssist include:

- ✈ a Field App (allows digital ordering, while providing productivity indices, predictive analytics, targets, and real time catalogue sync)
- ✈ an Analytics App (offers real time field insights, personalized dashboards, performance reporting and sales coverage analytics) and a dashboard (presents intelligent heat maps, sales MIS data, sales rep authentication, etc).

The analytics and data generated through the Analytics App of FieldAssist have helped clients to identify inefficiency in the supply chain operations and improve overall productivity and efficiency of the sales force.



Home-grown solutions in Bangladesh can take this as an example to integrate real time field insights to enhance their efficiency and identify pain points for further development, if needed, personalized dashboards for data generation and monitoring and supervision, performance reporting and sales coverage for increasing overall accountability and efficiency.



iPay (Africa)

iPay Africa is an innovative payment processing solution and payment gateway that incorporates VISA, Mastercard, M-PESA, Airtel Money and eLipa wallets to ensure an interoperable and one-stop solution for customers and suppliers. Used by over 5000 businesses, payments are made simple, automated, secure, affordable, and most importantly, interoperable among all the available modes of payment. A comprehensive online/point-of-sale transaction processing gateway allows users to receive payments online or at brick and mortar shops through iPay.

iPay's solution of merging all the different payment gateways into an interoperable platform allows all types of account holders and users to transact freely and efficiently. For example, retail micro-merchants can conduct smaller amounts of transactions with mobile money wallets, while distributors can use bank accounts/cards to conduct larger amount transactions. Using an interoperable and consolidated gateway reduces the pain points and costs of using multiple transaction options across different layers of the supply chain.



In the Bangladesh context, an interoperable digital payment solution like iPay that provides different supply chain users to utilize multiple transaction points/ channels (e.g., bank branches, ATM, agent banking outlets, MFS agent points, MFI branches, mobile application, e-banking) have higher potential of success. Financial service providers and FinTech stakeholders can consider to develop an interoperable multi-channel payment platform targeting the FMCG and other supply chain actors.

Digital innovations in the FMCG supply chain: Examples of two Bangladeshi home-grown solutions



Field Buzz

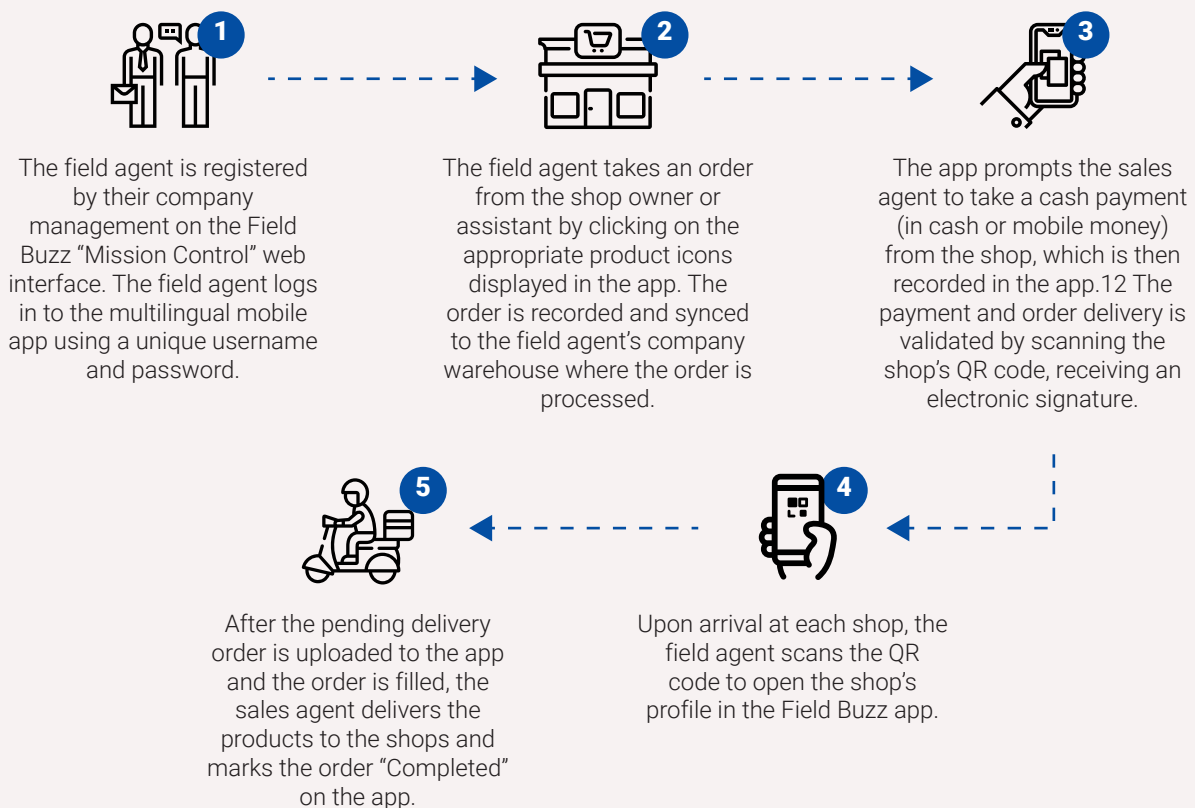
Field Buzz is a Bangladeshi technology solution provider company founded in 2015. Field Buzz supports to automate FMCG sales and distribution through enabling the companies efficiently manage their remote and dispersed operations all the way to the last mile retail shops. With the Field Buzz software on their mobile phones, field agents from FMCG companies (such as sales agents and delivery persons) electronically record all orders, deliveries, payments and credit transactions with retailers, saving time and effort compared to traditional paper-based record keeping. This information is then sent to their managers and warehouses in real time via mobile internet.

Since October 2018, Field Buzz has launched a low-cost SaaS solution in Bangladesh for field force management. Currently 19 companies are using the solution, with 1,472 users and over 270,000 retailers registered in the platform. Field Buzz customers in the last-mile distribution sector report seeing an average 30% increase in sales in an area after a successful software roll-out to that area as revealed in evaluations undertaken by the company, through the greater operational excellence that they can achieve thanks to the software. List of prominent FMCG brands currently using the solution includes Danone, Akij Group, Meghna Group, Ispahani Ltd., Lovello Ice cream, Rahul Group etc.

How the solution works:

The Field Buzz platform allows distributors and their sales agents to track orders and deliveries and make payments using a mobile application. Field Buzz provides each product distributor with a web interface to enable real-time order management and delivery tracking.

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Strength of the solution:

- ✈ True offline capability with intelligent syncing. The app works without active internet connection, even for weeks
- ✈ Simple per-user pricing, no hidden costs
- ✈ Accurate GPS location and time stamp with all activity
- ✈ 100% Bangla language support
- ✈ Friendly User Interface, suitable for low skilled field workers with limited digital literacy

- ✈ QR code support throughout the system
- ✈ All information from the smartphones syncs to an interactive web interface for managers
- ✈ Maps, charts, tables, key indicators and alerts help managers to efficiently assess and monitor performance

Field Buzz solution is supporting the FMCG clients through:

- ✈ Efficiently managing primary sales and order tracking through dashboard, automated digital invoicing and options of custom pricing for distributors
- ✈ Better manage secondary sales through enabling retailer registration, secondary order and sales tracking, deliver confirmation, instant invoice printing and GPS enabled transaction tracking
- ✈ 360° view of inventory through tracking monthly stock, stock return and rotation, dashboard based inventory balance report and analytics
- ✈ Customized target setting and tracking for individuals, sales teams and distributors
- ✈ Effective monitoring of customer visits enabling time, date and image verification
- ✈ Easier credit management for each retailer allowing configurable credit limit setting, credit limit exceeding alert, credit collection record and credit settlement history to check retailers' behavior
- ✈ Integrating and efficiently managing promotional schemes, loyalty programs and discounts

Field Buzz's SaaS model is enabling medium and small size FMCG companies and regional distributors derive benefits of digital supply chain management at a very low cost (packages starts from BDT 30,000 per month for a 100 staff member FMCG company). They are also offering another package starting from BDT 3,000 per month for 10 users, suitable for small local companies and regional distributors. The platform is also planning to integrate digital payments between FMCG supply chain actors in upcoming years in partnership with financial service providers, making it an end-to-end digital supply chain management platform facilitating efficient sales, distribution and payment management options for all relevant actors.














Sokrio (Distribution Management System)

Sokrio (Distribution Management System), is a SaaS (Software as a Service) based smart sales automation system, developed by Sokrio Technologies Ltd. (www.sokrio.com). Within a reasonably short time, the software has had significant market acceptance in Bangladesh and is being used by 500+ sales team members from 7 organizations. The client list includes renowned companies like Heidelberg Cement, Apex Footwear, MF Consumers Ltd. (national distributor of Johnson & Johnson), Lalteer Seed, Halda Valley tea, Tradesworth Households, and Bir Group Holdings.

Sokrio DMS has users across all the 64 districts of Bangladesh and already has more than 58,000 retail outlets mapped in the system to sell 68,000+ product SKUs. With this system, the current clients are potentially generating BDT 400 crore worth orders through approx. 270,000 number of invoices per year. The sales representatives of the current client organizations make more than a million outlet visits per year and report through this application. The software system has significantly improved the accountability of the sales team and have made it extremely easy to monitor and report their activities.

The user-friendly web and mobile interface along with excellent reports and visualizations have made Sokrio DMS a highly useful data driven decision-making tool for the clients. Currently the subscription of the DMS platform with advanced features are offered at a rate for BDT 525 per user per month, which is also affordable for small and medium Bangladeshi FMCG companies. Adoption of Sokrio DMS platform can bring up to BDT 7.4 million worth of efficiency per annum for a 100-member sales team, as assessed by the company. It has the potential to provide 800%+ return on investment within only one year of operations at full capacity. Sokrio is now expanding its Customer Relationship Management (CRM) platform, which will enable to clients to effectively engage with last mile customers in respective supply chains.

The key features of Sokrio DMS Platform are presented here:

 Live management dashboard	 Unlimited Product Upload
 Automated order and payment collection, product delivery process	 Outlet virtual inspection
 Employee tracking and outlet visit report	 Trade Promotion Management
 Visit route planning & Monitoring	 Market survey and intelligence collection
 Primary and secondary sales inventory tracking	 Call Centre and account manager Support
	 Worldwide Access



Home grown digital platforms like Field Buzz, Sokrio etc. are low-cost solutions which small and medium size FMCG companies can afford, and these platforms have been developed considering the field realities of FMCG supply chain in the Bangladesh context. As these solution providers are located in Bangladesh, technical support for any trouble shooting is readily available throughout the deployment processes and later periods, which many global technology companies cannot offer. Adoption of similar home-grown affordable solutions can significantly improve efficiency, minimize cost and enable growth in Bangladesh's FMCG supply chain.



Unlocking Public and Private Finance for the Poor

Digital Transformation of FMCG Supply Chain
Operations and Payments in Bangladesh

Challenges, Opportunities and Way Forward