Unlocking Business Value with RPA

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Abstract

With onset of digitisation across the globe, businesses are now undergoing Digital Transformation with automated business processes to achieve Business Outcomes. RPA is playing a key role in cost reduction, process efficacy, and increased workforce productivity with enhanced employee experience, reduced manual touchpoints, improved governance & compliance culminating into an enhanced customer experience.

Robotic Process Automation (RPA) has been gaining importance in recent times as RPA software revenue grew 63.1% in 2018 to $846 million, according to Gartner. It is expected that RPA software revenue will reach $1.3 billion in 2019.

A number of industries like banking, insurance, telecom and utilities have adopted RPA and realised a host of benefits. These organisations traditionally have many legacy and siloed systems and have chosen RPA solutions to drive operational efficiencies and reduce costs.

Through this white paper we explore how Communications Service Providers (CSPs) can realise long term business benefits by deploying RPA in their operational departments.

Contents

RPA – An Introduction

Leslie Willcocks, professor at London School of Economics' Department of Management, says that RPA takes the robot out of the human. The average knowledge worker employed on a back office process has a lot of repetitive, routine tasks that are dreary and uninteresting. RPA is a type of software that mimics the activity of a human being in carrying out a task within a process. It can do repetitive tasks more quickly, accurately, and tirelessly as compared to humans, freeing them to do other tasks requiring capabilities such as emotional intelligence, reasoning, judgment, and interaction with the customer.

The emergence of the term "Robotic Process Automation" can be dated to the early 2000s. RPA is a developing technology which relies on artificial intelligence, screen scraping, and workflow automation and elevates them to a new level, advancing their capabilities in a significantly improved way.

> "RPA is a type of software that mimics the activity of a human being in carrying out a task within a process"
>
> - Leslie Willcocks

RPA though underpinned by screen scraping and workflow automation, provides more benefits to the business users. RPA makes use of drag and drop features and thus users will little or no coding knowledge can also establish automation and manage workflows. Some RPA softwares can make use of optical character recognition (OCR) technology to adapt to changing websites without requiring human intervention

The below figure shows a simple Order to Invoice process steps in traditional way and in automated world where manual process required human intervention at each and every step. With RPA, the repetitive tasks not requiring any intelligence are automated, thus reducing possibilities of human error and processing time at one end and increasing productivity on the other hand.
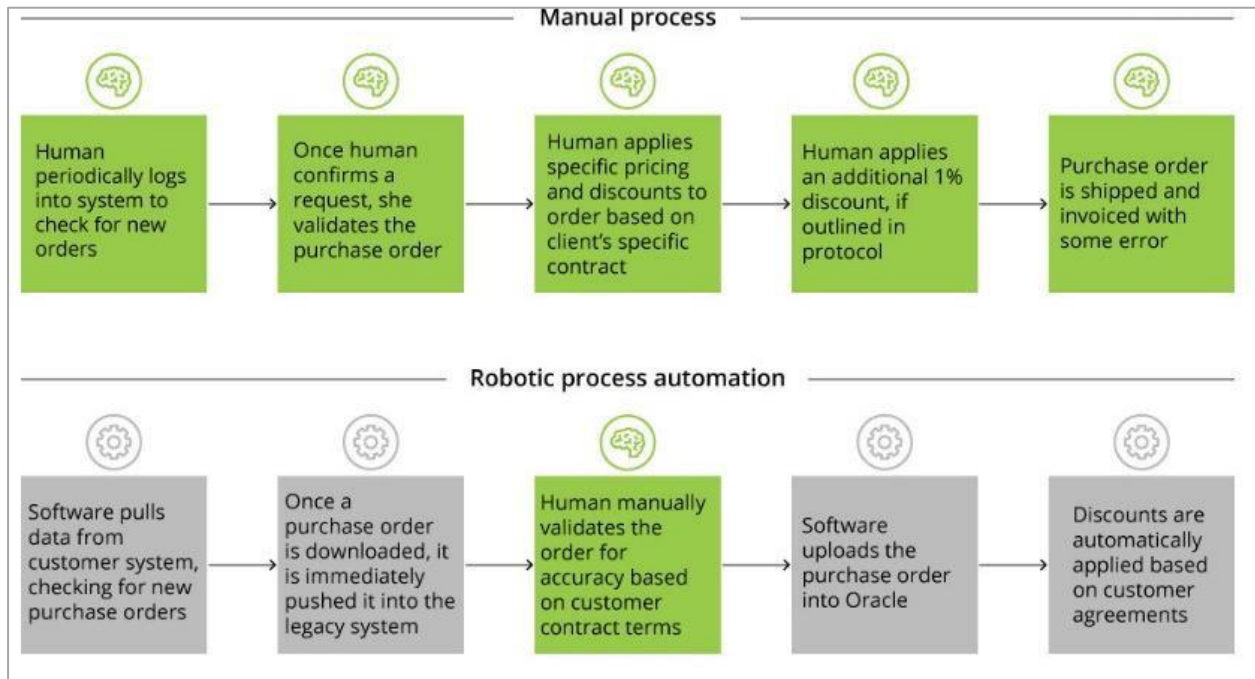
Figure 1 – Order to Invoice process – Manual vs Robotic process automation (Source: Deloitte Analysis)

RPA in Telecom

The use of RPA in telecom reduces error rates (i.e., near zero), improves data quality, boosts customer service, and enhances operational efficiency, while also making a significant contribution to cost reduction.

TM Forum's Business Process Framework (eTOM) is a standard framework of business processes for CSPs. There is a potential to automate a wide range of processes across the framework which could result in increased operational efficiency thus resulting in cost savings.

Below are some sample RPA use cases across various domains in the eTOM Framework.

Fulfilment	Assurance	Billing	ITIL
Order Handling	Problem Handling	Bill Invoice Management	Incident Management
Use Case: Assignment of customer order to a particular handler	**Use Case:** Perform customer specific problem diagnostics	**Use Case:** Bill Invoicing and Consolidation	**Use Case:** Convert events to resource trouble formats
Description: Customer orders are assigned to respective order handlers manually. Bots will be able to assign the customer orders to the respectively handlers automatically.	**Description:** Performing diagnostics usually involve triggering tests in different systems manually. With RPA these tests can be run automatically and results can be consolidated.	**Description:** Manual invoicing and consolidation can be eliminated by dynamically programming invoice messages, automatic calculation of fees, and managing invoices based on user profiles	**Description:** Check if required information from events from various sources and automatically convert the information to create an incident.

Figure 2 - Sample RPA use cases in eTOM

Tech Mahindra has a comprehensive catalogue of RPA use cases mapped to the various domains and process areas of Business Process Framework. These are ready reference use cases and can help in readily identifying automation opportunities in the operational areas of a CSP.

Figure 3 is an illustration of the use cases for these processes spanning across various domains in Strategy, Infrastructure & Product and Operations areas.

Potential RPA Use Cases for Business Process Framework (eTOM)

STRATEGY, INFRASTRUCTURE & PRODUCT

STRATEGY AND COMMIT	INFRASTRUCTURE LIFE CYCLE MANAGEMENT	PRODUCT LIFE CYCLE MANAGEMENT

MARKET & SALES DOMAIN

SALES DEVELOPMENT

RESOURCE DOMAIN

RESOURCE CAPABILITY DELIVERY

OPERATIONS

OPERATIONS SUPPORT & READINESS	FULFILMENT	ASSURANCE	BILLING & REVENUE MANAGEMENT

CUSTOMER DOMAIN

ORDER HANDLING   PROBLEM HANDLING   CUSTOMER QoS/ SLA MANAGEMENT

BILL INVOICE MANAGEMENT   BILL PAYMENTS & RECEIVABLES MANAGEMENT

CUSTOMER INTERACTION MANAGEMENT

BILL INQUIRY HANDLING   MANAGE BILLING EVENTS

CUSTOMER MANAGEMENT

CHARGING   MANAGE BALANCES

CUSTOMER INFORMATION MANAGEMENT

SERVICE DOMAIN

SERVICE PROBLEM MANAGEMENT

WORKFORCE MANAGEMENT

RESOURCE TROUBLE MANAGEMENT

PARTY DOMAIN

PARTY PROBLEM HANDLING

PARTY INTERACTION MANAGEMENT

ENTERPRISE DOMAIN

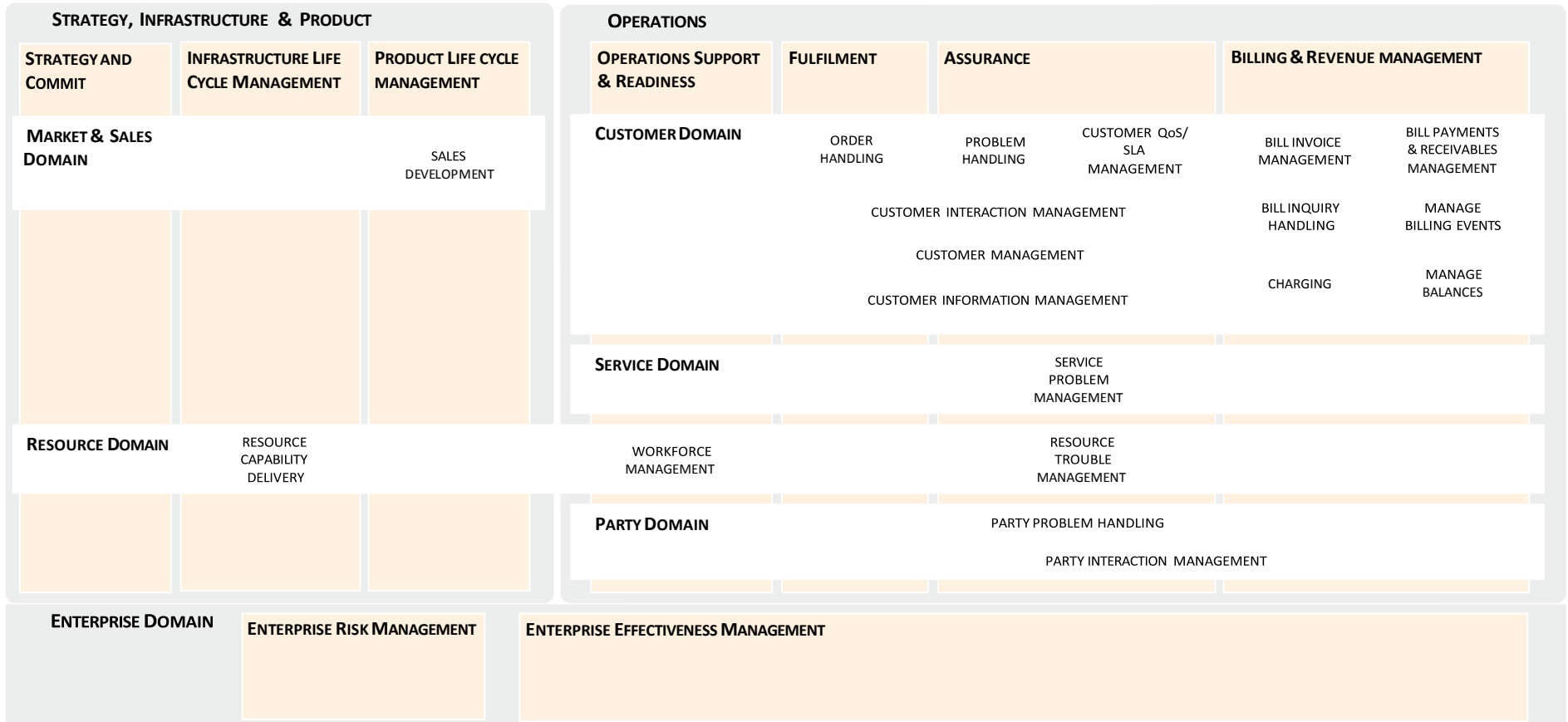| ENTERPRISE RISK MANAGEMENT	ENTERPRISE EFFECTIVENESS MANAGEMENT

Figure 3 – Source: TM Forum Business Process Framework (eTOM) R17.5 and Tech Mahindra analysis

Measuring the Benefits of RPA

Implementation of RPA provides many direct operational improvements that can be measured using a host of metrics.

TM Forum provides a standard set of metrics for the telecom domain that can be used to capture critical performance indicators. These are operational KPIs (Key Performance Indicators) across various domains of eTOM like Fulfilment, Assurance, Billing, etc. These operational metrics can lead to improvements in overall business performance which can be measured by business metrics. Below is an illustration of sample operational metrics/KPIs across various domains that can help in improving some of the business metrics.

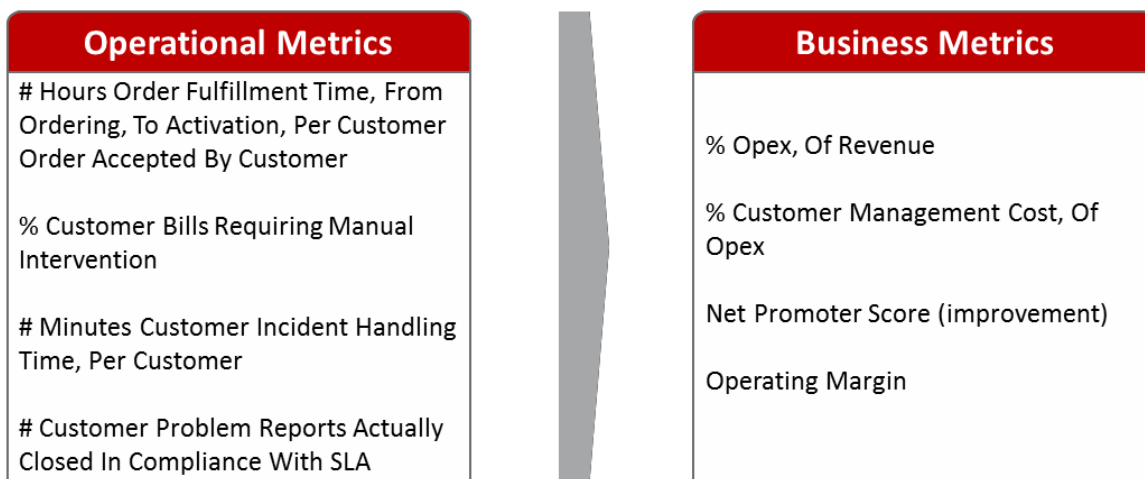| Operational Metrics	Business Metrics
# Hours Order Fulfillment Time, From Ordering, To Activation, Per Customer Order Accepted By Customer	% Opex, Of Revenue
% Customer Bills Requiring Manual Intervention	% Customer Management Cost, Of Opex
# Minutes Customer Incident Handling Time, Per Customer	Net Promoter Score (improvement)
# Customer Problem Reports Actually Closed In Compliance With SLA	Operating Margin

Figure 4 - Operational Metrics that can lead to improvement in Business Metrics (Illustrative)

While embarking on implementing RPA it is quite important to define the operational metrics and measure current values against which improvements can be measured. This is to ensure true success of an RPA implementation and also for the telco to realise a larger business value.

Unlocking Business Value

CSPs have been combating a number of challenges like declining growth, shrinking margins and intensifying competition from disruptive players. Continuous improvement and automation are top strategic priorities for organizations exploring RPA. In comparison to expensive AI solutions, RPA Bots are typically low-cost and easy to implement, requiring no custom software or deep integrations. As such, they remain an accessible piece of IT infrastructure. It thus becomes imperative for the CSPs to make the right investments to improve business performance and one of those ways is to invest smartly in digital transformation like implementation of RPA to release savings in the form of money and direct those savings into capex investments.

In fact RPA technology has proven to cut the cost of off-shore back office workers by more than half.
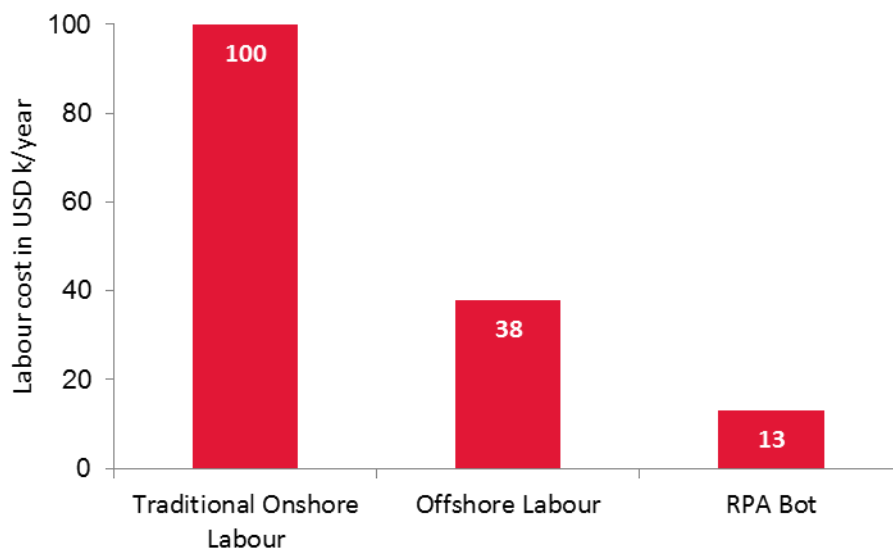

Figure 5 - Labour cost comparison

In the previous sections, we have discussed how RPA leads to operational efficiencies, for a CSP and how to measure them. RPA is not just about cost savings and efficiencies, it can help provide new capabilities to the business and increase employee satisfaction. RPA leaders are spending as much as 5 to 10 times the usual budget to outflank the competitors in efficiency and effectiveness.

Therefore, efficiency is typically the main driver for deciding to invest in RPA and obtaining budget, while the additional benefits provide a nice bonus to the program. Let's explore how CSPs unlock business value with RPA.

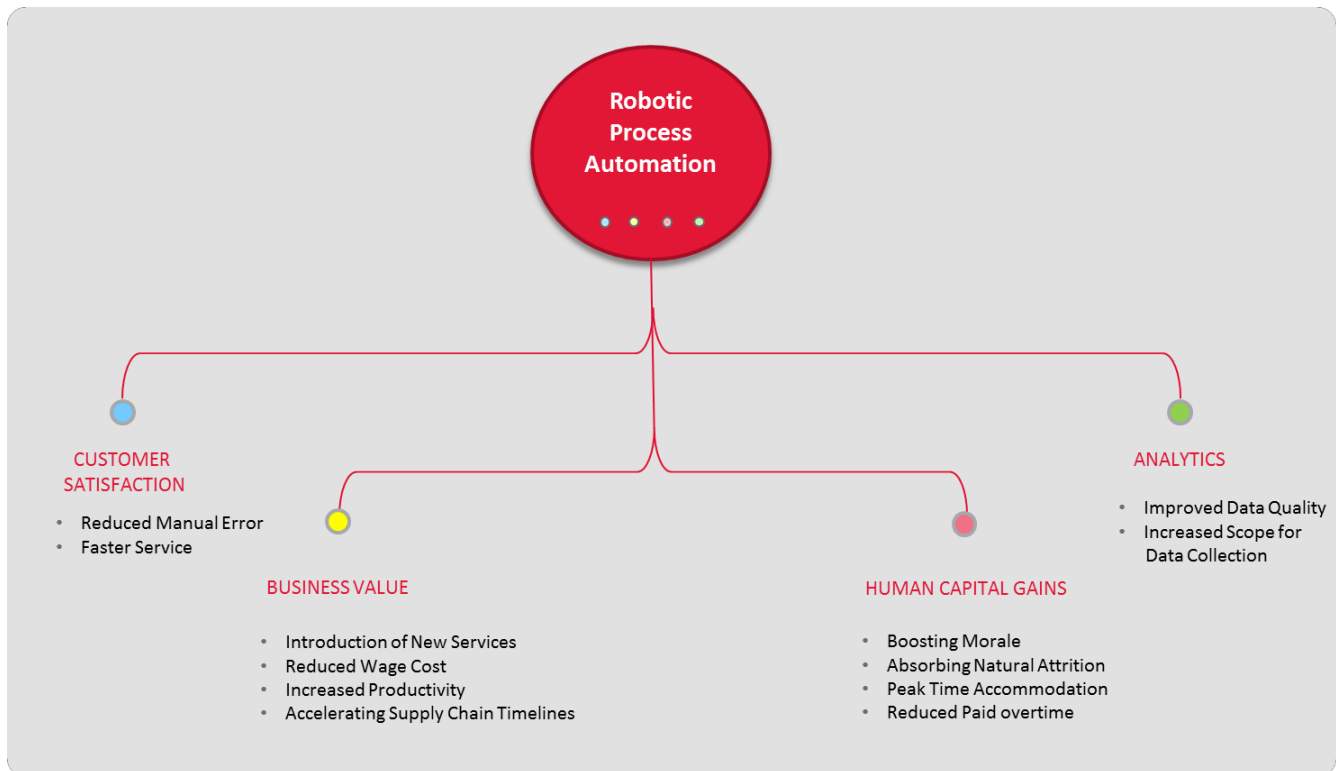The value derived from RPA can be broadly classified into following:

Figure 6 – Value derived from RPA (illustrative)

1. Customer Satisfaction

- Reduction of manual errors: Reduced errors due to elimination of multiple manual interventions, is one of the primary benefits of RPA. Customers will no longer need to complain about errors that you introduce to their data.
- Faster service: Working with BOTs speeds ups completion of operational processes without break resulting in quick services to customer.

2. Business Value

Businesses can increase or generate revenue drivers by leveraging RPA in these areas:

- New services: RPA can enable CSP to be more innovative by creating new services for clients that weren't economically feasible with manual labour.
- Investment in new product development: CSPs will be able to shift focus from grappling with operational costs and invest in new product and services.
- Faster turnaround time leads to higher sales volume: RPA can streamline communication process and CSPs can generate higher sales volume by responding to leads faster than the competitors respond.
- Increased productivity: By boosting productivity and focus on high value tasks, companies can maintain the headcount and generate higher sales.
- Accelerating Supply Chain Timelines: CSPs can benefit tremendously by implementing RPA to reduce supply chain cycle time. For example, let's say a company has $100 million frozen in

assets from procurement of materials to sell end products. With RPA, the cycle time reduction by 10%, could free up $10 million in assets due to a quicker turnaround time. This one benefit could possibly pay off the entire RPA implementation cost for a company.

- **Simplifying Migration:** As more businesses migrate from legacy systems to next-gen platforms or cloud- based solutions, RPA is an ideal solution for companies that do not have APIs or database access to these legacy systems. Deploying RPA in these cases can save time and money for the business.

3. Human Capital Gains

- **Boosting Morale:** Manual and tedious tasks demotivate employees. Removing these mundane practices from employee workflows gives employees more time for high-value tasks. It allows time for reskilling and upskilling at one end and converge the focus to strategic planning and corporate governance at the other end.
- **Absorbing natural attrition rates:** Considering attrition rate of 10-12% as healthy, it means company can absorb 10-12% efficiency gains throughout the year without disturbing current organizational structure.
- **Peak time accommodation:** Peak time (provisioned during business planning) can be easily absorbed by leveraging technology, eliminating the need for additional workforce planning to handle these particularly busy periods.
- **Paid overtime reduction:** RPA can help in reducing paid overtime and physical presence for repetitive and high volume tasks.

4. Analytics

- **Improved data quality:** RPA eliminates the possibility of human error by logging every step with consistency and accuracy. Higher data quality leads to accurate insights about a CSP's business.
- **Increased scope for data collection:** Robots interact with legacy systems uncovering data that was previously labor-intensive to extract. This enables analytics team access more data that leads to analyses that are more accurate.
- **Automated reports:** Automating reports is especially valuable for the analytics department, allowing them to focus on more sophisticated, custom analysis.

Case Studies

Tech Mahindra has proven credentials in the RPA implementation space using its in-house developed product UNO and by also partnering with leading RPA vendors. Below are a couple of case studies in the telco space and the value delivered.

Robotic Process Automation for a Leading Telecom Operator in South East Asia

The Customer

The customer is a leading CSP in South East Asia operating one of the largest mobile, broadband and fixed line network in the country catering to individual customers, small & medium business and corporate customers.

RPA implemented for their Front Office Service Desk Operations.

Business Challenges

▶ Poor Customer Experience
▶ High average call handling time (AHT) and Hold time
▶ Inefficient processes and systems for handling growing transaction volumes.
▶ High agent training & onboarding time
▶ Need for a solution with no integration with existing IT stack

Solution Offered

TechM's solution had a 3 pronged approach post Due Diligence and automation feasibility study. The process automation was achieved by in-house tool - UNO High agent training & onboarding time.

Implementation

▶ Categorized processes into 3 types – full automation, partial automation and manual lean.
▶ UNO Desktop Unification and RPA together gave the business benefits accounting. RPA was used for saving tracker details and real time reporting facilities.

Value Delivered

| **20%** reduction in AHT | **21%** FTEs saved | **Zero** Integration with IT Stack | **Improved** Customer Experience |

The Customer

The customer is a leading CSP in Europe offering fixed and mobile based internet services to Consumer and Business market. Automation was a part of Business Process Re-engineering engagement to
Optimize strategic cost, achieve operational excellence and enhance customer experience.
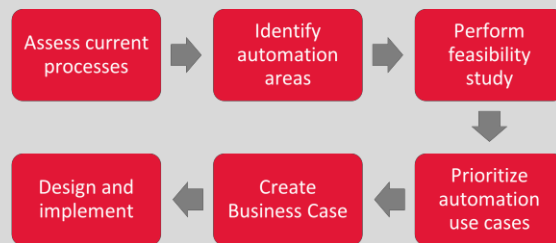
Business Challenges

▶ Poor Customer Experience
▶ High average call handling time (AHT) and Hold time
▶ High call volume to service desk for information queries
▶ High cycle time due to manual analysis by agent

Solution Offered

The following use cases were identified for delivering value.

▶ Service Assurance - Call volume reduction due to enrichment of missing technical data.
▶ Order Fulfilment – Call volume reduction from Customer home move by automating agent analysis of line takeover.
▶ Resource Change Management – Manual effort reduction due to RPA based solution for impact analysis.

And identified by adopting the approach:

Assess current processes → Identify automation areas → Perform feasibility study → Prioritize automation use cases → Create Business Case → Design and implement

Value Delivered

~75-80% reduction in AHT

~50% Call reduction for order status enquiry

Reduced Cycle time and Opex

Improved Operational Efficiency & CX

Conclusion

In a survey by Russell Reynolds Associates, 64% of the executives who were surveyed in the telecom industry, expected moderate to massive digital disruption in the next 12 months. This is second only to media industry where 72% of the executives echoed the sentiments. This goes to show the impact digitisation is having on telecom industry and CSPs need to be more than poised to respond to such disruption.

In a McKinsey survey, a third of the CSP respondents were preparing to move into adjacent businesses such as financial services, media, utilities, etc. to generate new revenue streams. Additionally CSPs are getting into new business models to combat declining revenues from legacy offerings.

All of this requires capital investments for the CSPs to remain ahead of the game. Companies look forward to invest structures and frameworks. This means the cost savings from improved operational efficiencies (i.e task automations, enhanced productivity, optimized and skilled workforce) will be invested in centralized coordination centers — automation centers or centers of excellence — designed based on unifying frameworks. Investment in digital technologies like RPA will help in short to medium term operational efficiencies and costs which can be utilised to gain long term business advantage and stay relevant in turbulent times.

CSPs also need to understand that RPA does not necessarily put workers on the unemployment line, but to retrain them in ways to be capable of creating new business opportunities in the 21st century.

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