ACCOUNTING AUTOMATION OF LEARN O BOTS (Private) LIMITED

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ABSTRACT

AI has enabled theaccounting professionals to draw their attention towards accounting automation over the span of time. Technologies such as blockchain and artificial intelligence are a huge impact over every business not only accounting profession. Accounting automation uses the software to perform rules-based task, which are being performed by the people. This project explores the adoption of accounting automation by Learn o Bots and how they coupe up with this change, along with the behavior of accounting professional toward the accounting automation. Data was tested department by department, so that the testing would be easy. Results shows us that company along with their accounts personal were satisfied with the new system being implemented for accounts department, however it would take time to opt it.

Keywords

Accounting professionals, Accounting automation, Blockchain, Artificial Intelligence,

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1. INTRODUCTION

Accounting is the way of identifying, analyzing and communicating the financial data about the economic entities which allows them to make sound decisions and well-informed judgements (Kimmel, P. D., Weygandt, J. J., &Kieso, D. E. (2022)). In today's fast-moving world, manual accounting practices can be more time taking and more prone to errors. Accounting automation refers to the use of technology and software applications to streamline and optimize various financial tasks and processes within the field of accounting (Smith & Johnson, 2020). This innovative approach leverages advancements in artificial intelligence, machine learning, and robotics to enhance the accuracy, efficiency, and speed of financial data management (Brown & Williams, 2019).

Company Profile

Learn O Bot was incorporated as a private limited in 2018 with the purpose to excel in the field of 3D printing and robotics. They are located at National science & technology park (NSTP). They have been providing services related to robotics, making of systems which involved robots and programming the robots. They are also conducting session and enrolling students from schools in the domain of STEAM (Science, Technology, Engineering, Arts and Mathematics), there are various camp conducted throughout the year. Furthermore, they had partnership with several companies to build their project.

In today's data driven world, accounting automation is not just a time saving tool. It has evolved into a crucial strategic requirement; revolutionizing the way the business manages their finances and gain valuable insights. Transforming the way businesses manage their finances and gain valuable insights. Let's delve into the reasons:

- Efficiency Unleashed: Imagine getting rid of the manual grind of data entry, invoice management and bank reconciliations. Accounting automation frees up the human capital for high-value work like financial modeling, proactive risk management and strategic analysis by tackling these repetitive tasks with robotic precision (Cao, 2023). This improves the efficiency of the processes and is translated to improved cash flows and

faster reporting cycle (Finance Strategist,2023), and at the end results in better decision making (Lee & Shim, 2020)

- Data Accuracy: Manual work is prone to human errors but in financial world, this has to be dealt with extreme care if not then the company has to deal with devastating consequences. Accounting automation reduces the risk by automating reconciliations, transactions and calculations (Fernandes, 2023). This make sure the data integrity and strengthens the compliance (KPMG, 2022), and creates a sense of confidence with the stakeholders who are dependent on the accurate financial information (Gaertner, 2023).

- Clear Insights: Old accounting techniques provides the rearview mirror view of finances. Automation changes the game by providing analytical data and real time dashboards that highlights the trends, ambiguities and opportunities (Hinton, 2023). This allows the business to be proactive rather than reactive and make the decisions on the basis on data available that can reduce the cost, maximize profits and effectively handles the shifts in the market (Xiong & Cao, 2022).

- Scalability Supercharged: As the business expands, manual accounting becomes more difficult. On the other hand, automation scales easily. As the company grows, its ability to manage higher transaction volume with ease, accommodates new data sources and interact with other business systems with ease will guarantee that financial operations stay reliable and effective (IFAC,2023)

- Security Threats: Automation can be a powerful defense to the breaches and cyberattacks, that are constant threat to the system. By automating the access controls, audit trails and data encryption, businesses can notably reduce the risk of human error and hostile action, protecting sensitive financial information and fostering trust with customer and partners (AICPA & CIMA, 2023).

ROI of Automation

The accounting automation ROI has been shown by the numbers by themselves. Some studies have shown that accounting automation can lead to up to 80% reduction in manual data entry time (Cao, 2023), enhanced the productivity of employee by 25 % or more (Lee & Shim, 2020), improved the cash flows visibility by 40% (Finance Strategists,2023) and significantly decrease

in accounting errors (Fernandes, 2023). These figures have depicted the real image that accounting automation is not just a convenience, it has changed the scenario of today's world in which technology is the key. By using these technologies, several businesses have unlocked new potentials of efficiency, accuracy, security and insights. Ultimately, this has given the businesses a competitive edge over other in marketplace.

The success to accounting automation begins form understanding the business need, goals and achievements. Examine the wide range of automation options available, decide which areas will have the most of the effect and invest in a system that work in unison with your current process. One thing to remember that automation cannot replace people but this can allow them to enhance their skillset to get the best result out of it.

AI and Blockchain in Accounting Automation

Blockchain and Artificial intelligence are two potent technologies that are about to revolutionize the accounting industry. These technologies have enormous potential that can take accounting practice to another world and can enhance efficiency, accuracy, transparency and trust in financial landscape.

Financial reporting can be made more transparent and trustworthy by using blockchain, which provide an immutable and invincible ledger for recording accounting transactions. This can reduce the chances of fraud and errors, resulting in more accurate, reliable financial data with the enhanced collaboration among the stakeholders (Swan,2015; ICAEW, 2023). Blockchain technology has an ability to automate the reconciliation process by conforming the accuracy of transactions between the system automatically. This can save time for the professional and that time can be used to focus more on the strategic tasks (Forbes,2021; LinkedIn,2023). The blockchain records the transaction in a chronologically order, creating an audit trail that is simple to follow and validate. This can greatly reduce the time and efforts for audits and increase productivity and efficiency (Forbes,2023). Blockchain also allows us to precisely and transparently track the ownership and movement of assets like intellectual assets. This reduces the possibility of theft and loss, streamlines regulatory compliance and enhances asset management (Swan,2015; Forbes,2021).

AI is able to forecast the future financial results and assist in making the strategic decisions by analyzing the past data and market trends, this supportsthe business in better budgeting, forecasting and resource allocation (ICAEW,2023; Medium,2023).AI is also capable of analyzing financial information and situation to provide tailor made financial recommendation and advices that meet their need and objectives. This improves client loyalty and satisfaction (Medium, 2023; Tapscott & Tapscott, 2016). Accounting professional can focus more on the strategic analysis and decision making by using AI to automate time consuming data entry operations. Furthermore, AI can dissect larger databases to identify the trend, pattern, abnormalities and supporting well informed forecasting and financial planning ("AI: Changing the Landscape of Accounting," 2020). Realtime transaction analysis using AI algorithms can help the companies for identify the doubtful trend and identify suspicious patterns. This proactive approach minimizes financial losses and enhances the security (Forbes,2022).

AI: Job Replacement Narrative

Accounting is the one of the industries where AI is turning out to be a serious threat. The evolution of accounting automation, from robotic process automation (RPA) to artificial intelligence (AI). Now the question arises that will robots replace the accountant's jobs or will they become the most powerful allies?

The Potential Job Displacement Narrative:

On the ground, automation cause a great threat. Multiple repetitive tasks like invoice processing, data entry and bank reconciliations are ready to be taken over by automation. Automation could replace the less trained accounting staff. In 2020 a study from McKinsey Global institute stated that up to 800 million jobs around the globe, including 15%of accounting and bookkeeping professional's jobs will be automated by 2030.The job displacement narrative intensify the fear and present a depressing image of high unemployment in the account profession. But if we dig down into it, we see more complex reality.

The Transformation Narrative:

Let's think in a positive way and consider automation as a revolutionary instrument rather than a job-stealing monster. There are ways how accountants can profit from the automation. Accounting professionals can outsource the repetitive tasks to automation can get involved in high-end activities like financial modeling, analysis and risk management. Automation can make the professional to ditch the spreadsheets and focus more on complex task that can enhances their skill set. By using AI powered tools, professional are enabling to analyze the vast datasets, discover the future trends that traditional accounting was missing. Accountants can use this analysisoptimize the resource allocation and make well informed decision that can help in growing the business. The service automation enables the professional to offer their clients with some extraordinary services such as tax planning, real time financial updates and streamline the routine tasks that can help the professionals to accommodates the clients and build the good relationship with them. Automation allows the professionals to be well prepared to use the technologies and learn how to use, manage the AI systems and develop critical thinking and communications skills.

The Human-Machine Collaboration Model:

Accountants will become the automation controller. By using technologies, professional can enhance their knowledge and skills. It not human vs machine but these two will have to work in collaboration, this is the way in which the accounting will be developed in future. This synergy will be profitable if the automation handles all tiring task and let the human work with complex tasks. In this changing environment, accountant who coupe up with the technology, upgrades the skillset and become familiar with the new normal will prosper. Accounting automation is a call to evolve rather than the profession's demise. Remember whenever you listen the word of accounting automation don't just think that robot will take place of humans in fact, they will work in collaboration in order to fully unlock the potential of finance.

Objectivity in terms of SMART

Specific:Clearly state your goals what you want to achieve. Ask to reduce the manual data by 50% in 3 months rather than saying improve your efficiency (Cao,2023).

Measurable: Determine your objectives. State eliminates 95% of manual work errors by Q4 (Fernandes, 2023).

Attainable: Establish challenging but achievable goals. Don't try to automate everything at once instead start small and expand gradually (Gaertner, 2023).

Relevant: Make sure that your goals are in line with the company's goals. Don't automate for the sake of automation but tie your goals like cost reduction and revenue growth to it (Lee & Shim, 2020).

Time-Bound: Set deadlines to help you to stay on target (Xiong & Cao, 2022).

The trend is shifting. There are few examples on how the companies are utilizing the accounting automation. We may anticipate even wider adoption across the industries along with the technological advancements, as the business manage to reduce their cost and achieve their goals. Here are some examples of some businesses that are leveraging this technology to survive in today's world.

1. Fintech Startups Streamlining Operations:

- Stripe: This massive payment company automates their expense tracking and invoice reconciliation and freeing the finance team to work on the key projects (Forbes, 2023)
- Brex: This corporate card provider enhances the employee happiness and financial transparency by using automation to manage expense reports, approvals and reimbursements in real time (Azevedo, 2022).

2. Retail Giants Optimizing Cash Flow:

- Walmart:Using robotic process automation (RPA), the retail giant automates accounts payable activities, cutting processing time by 70% and freeing the employees to work on higher end analysis (PwC, 2023).
- Amazon: This e-commerce tycoon uses machine learning to automates the payments and forecast the cash flow, maximizing liquidity and lowering the financial risk (McKinsey & Company, 2022).

3. Manufacturing Powerhouses Enhancing Accuracy:

- Ford Motor Company: This pioneer in the automobile industry adopted AI powered invoice processing, eliminating human error and obtaining 95% data accuracy (Accounting Today, 2023).
- Siemens: This industrial company employs automation to ensure regulatory compliance, streamline tax compliance and prevent hefty penalties (Deloitte, 2022).

4. Healthcare Providers Prioritizing Patient Care:

- Cleveland Clinic: This medical center automates medical billing and coding to increase accuracy, lower claims denials rates and ultimately provide better patient care (Becker's Hospital Review, 2023).
- Humana:This health insurance company employs automation to streamline member communication and claims processing, freeing up employees to concentrate on providing individualized care and customer support (Healthcare Finance Review, 2023).

5. Non-Profit Maximizing Impact:

- World Wildlife Fund: This environmental organization maximizes resources allocation and ensures effective support for conservation activities by automating donor administration and fundraising (Nonprofit Finance project,2023).

- Habitat for Humanity: this housing charity builds more homes and help more families in need by leveraging automation to expedite grant administration and financial reporting (TechSoup, 2023).

2. PROBLEM DEFINITION AND REQUIREMENT ANALYSIS

Current Problem and its Impact

- Current problem

The current state of the company's accounting processes is riddled with manual tasks, human errors and inefficiencies. Data entry, reconciliation, financial reporting and payroll processing are done by hand. All the calculations along with the tax preparations are done on that data which is not even being posted efficiently and correctly which may lead to reduced profitability, missed opportunities, compliance issue and damaged reputation.

Manual data entry for invoices, receipts, and payments is time-consuming and prone to errors. Reconciling bank statements with accounting records is another tedious task, increasing the risk of discrepancies. Financial reports are also prepared manually, delaying their availability and potentially impacting their accuracy. Even payroll processing suffers from manual inefficiencies, leading to wasted time and increased error rates. Human errors compound these issues further. Typos, double entries, and missing information are common in manual data entry, further jeopardizing the accuracy of financial records. Reconciling bank statements and calculating taxes manually increase the risk of errors and compliance issues.

Beyond inefficiencies and errors, the company faces additional challenges. Lack of timely and accurate financial data hinders informed decision-making. Manual processes lack the scalability to accommodate future growth, leading to potential bottlenecks and inefficiencies. Security concerns also arise due to the vulnerability of manual systems to data breaches and fraud. Finally, the high costs associated with manual processes, in terms of time and personnel, can be a significant burden for a newly formed company.

These inefficiencies and errors have a substantial negative impact on the company. Reduced profitability, missed opportunities, compliance issues, damaged reputation, and increased employee stress are just some of the consequences.

- Impact of the problem

Cost of the errors and correcting those consumes the time along with the resources, which would impact the productivity and performance of the employee. These errors can cost the company delayed payments, missed deadlines and relationship with the customers. Delayed and inaccurate financial reporting hinder timely reporting and decision making, the investments and the loan can also be delayed if the financial reporting will be delayed. These delays can hinder the access of crucial capitals for the company. While manually handling the company, processes can be time taking which will result in delayed outcome and operations which in end will affect the profitability of the company.

Lack of controls can increase the risk of fraud, manual systems are more vulnerable to frauds might have to deal with manipulation in records, transactions and etc.it obvious that if the detections is delayed, the solution to that problem will also be delayed and until then the system will be corroded and the damaged will be done. Manual systems can create a data chaos, making it difficult to analyses the trends or make the strategic decisions. Without the access of real-time data, organization lacks the insight needed to capitalize on the market opportunity and adapt the changing conditions.

Moreover, some studies show that shifting from manual to automation the errors can be reduced by 80-90%. It can improve the financial reporting accuracy to 50-70%, along with the employee's productivity will be increases as well. By automation the company can reduce the cost and improve the efficiency and gain the insights and will able to able sound, better strategic decisions.

Requirement Analysis

- Functional Requirement

A user-friendly interface and customizable dashboards make it easy to navigate and personalize the systems according to the needs. Multiple access along with the automated reports keeps the stakeholders informed with the relevant reports. Building the accounting system that works aligns with the CRM, ERP and the Hr. systems. Data integration eliminates the information chaos, streamlines the data flow and ensures consistency across the department. Automation keeps the organization on same page.

Pre-built financial reports (income statement, Balance sheet and etc.) are just the start to automation. A full fledge accounting system allows to create custom dashboards and reports, allowing you to analyze the data from every angle. It helps the organization to view the trends and dig down into the financial insights. Automated systems automatically post from the various sources including from customers to employees, creditors to debtors. Reconciliations can become easy if the systems are integrated, minimizing the manual efforts and reducing errors. For accounts receivable and payable the system will handle these for you. Invoices will be automatically scanned and processed, eliminating errors and saving valuable time. Digital workflow simplifies the vendors invoice approvals, ensuring the timely payments and improving the cash flow management.

Protecting your sensitive financial information is paramount. Role-based access ensures only the authorized user can access specific data, while encryption and backup protocols safeguard the information. Audit trails and logging track every user activity and system change for transparency and compliance.

- Non-Functional Requirement

The system is capable of handling thousands of transactions and has the ability to grow with the business. With the defined structure the system will be performing flawless in future. The system haves the backup because being downtime is the worst nightmare for the business. Comprehensive training, detailed documentation will be given to the team to unlock the full potential of the system.

Seamless integrations with the existing software eliminate the data silos and fosters collaborations, while data import/export and Api access empowers the organization to share and analyze the information with ease. User friendliness take center stage with an intuitive interface, personalized dashboards and mobile access, makes the financial data easily accessible and actionable.

Stakeholder Needs and Preferences

- Accountants and Finance Professionals:

Accounts professionals plays a pivotal role in an organization, relaying on the accurate and up-to date financial data to fulfill their responsibilities effectively. Compliance with accounting standards, regulations and company policies is paramount for them, and they require streamed lined financial processes and system to enhance efficiency in their tasks. Their preference includes user friendly accounting software, ongoing training opportunities to stay updated on the latest account standard and technologies.

- Management and Decision-Maker:

Management and decision makers solely depend on the timely and relevant information to make informed strategic decisions. They need insight into potential risk and uncertainties, seeking financial forecast to plan for the future and allocate the resources effectively. Their preference involves dashboards and analytical tools that provide the snapshot of KPI, special reports on specific metrics relevant to decision making.

- IT and security Personnel:

IT and security Personnel are focused on ensuring the security and reliability of financial data. They prioritize robust systems that integrate seamlessly with other infrastructure components to prevent unauthorized access and potential breach. Their preference includes the scalable solutions that can adapt to the evolving needs of the organizations, robust user permissions and access controls to manage data confidentiality and systems that receive regular updates and maintenance.

- External Auditors and Regulators:

External auditors and regulators are the external stakeholders who requires accurate financial records and compliance with the auditing standards. Transparency and access to relevant financial information during the audits are crucial needs for them, as is the timely submission of required reports and documentation. Their preference includes the systems with clear audit trails and comprehensive documentation.

3. DESIGN AND IMPLEMENTATION

System Design

- Technical Architecture

The cloud-basedsolutionswas chosen for the accounting automation, as for the small and medium size businesses (SMBs) it has emerged as a game changer. Cloud based accounting however offers the scalability alongside with the business growth. There is no need for additional hardware or software, simply we have to adjust our subscription plan according to our need. This can empower the business to focus on what they are doing and build. This architecture offer that the relevant person can work from anywhere and just one click away from the accounting system. Cloud based accounting takes the burden off as the automatic updates will always take place and keep the software up to date and will be have their own robust security that keeps the data safe. Compared to the conventional system that requires upfront cost, software licenses and expensive server installation, the cloud-based systems don't require that, we just have to subscribe.

- Software Selection

Considering many options on the basis of costing, accessibility, ease of access and the number of features offer by the software, we came to a conclusion that QuickBooks Online is one of the effective software that offers a comprehensive solution that fulfill the accounting needs of many small and medium business and boost their efficiency. This software almost automates every task from Account Payable, Account Receivables, invoicing to payroll, from vendor to customer and improve the data accuracy by reducing the manual errors. This software offers you the simplified reporting and generates customize reports, dashboard and gain real time insights on the business financial performance.

- Data Integration

QuickBooks Online is not only an accounting tool but it's a data hub that connect the entire business ecosystem. Its integrations with various tools pave the way for streamlined workflows, efficient data sharing and profitable operations. We can sync customer data between QuickBooks online and the CRM, no more juggling the multiple platforms to generate invoices, track payment and manage customers. QuickBooks Online can also be integrated with the Microsoft Excel that can ensure the consistent information across the systems. The Bank reconciliation hassle can be solved by connecting the bank account that can save your time and minimize errors. We can integrate QuickBooks online with any of the e commerce platform to track and directly generate the report for inventory and sales, along with the project management tools, Hr. and payroll. QuickBooks Online robust API allows the business to develop custom integrations with any tools that fits the business specific need and unlock the new levels of data flow and automation.

- Workflow Automation

Weautomated the task according to the need of business for instance we can automate the invoice processing which sends the invoices upon the order fulfilment, scheduling recurring invoices and automate the payment reminders. For accounts payable, automated approvals, schedule bill payment and reconcile bank statements. For purchase order it can generate the order based on the inventory levels, track order receipts and streamline vendor payments. Keeping the track for expenses and categorization, sending approvals and the reimbursements. For payroll, simply the payroll processing, tax deductions and the deposits and at the end we can schedule the reporting time span so that the report should be with the key stakeholder by the time.

- User Interface and Accessibility

QuickBooks Online provide the user friendly and easy environment to work on that almost feel like a normal excel spreadsheet. It's easy to navigate around the whole software, as it is logically structured. Itprovides you with the search bars and helpful prompts that guide you through every step. Even a person with non-accounting background can access this software after the basic understanding of accounting. QuickBooks Online also provide its mobile application so that the

user can access and navigate around the information anywhere and everywhere. Plus, the support from QuickBooks Online by arranging the webinars, online tutorials and support documentation, which doesn't let down the person. QBO isn't just the accounting software in fact it's a user-friendly companion for the financial journey.

Implementation Plan

- Project scope and Timeline

The main goal for implementing the QuickBooks online is to automate every aspect of accounting, as it is a growing business so it doesn't have enough resources that every single module managed by one person and become whole department, company can only afford one or two persons on this project. The main purpose of this is to increase the efficiency and productivity of the business by reducing the manual work that would save the time and result in the maximum output. Furthermore, improve data accuracy and integrity, enhance the controls and gain a competitive edge over the others.

The timeline for this project was around 4-5 weeks in which we have to cover the different phases of implementation

a. Planning and Preparation: The company was using Microsoft Excel to record their account and manually keeping the record for everything. Making that data complete, consistent and compatible to QuickBooks online. Assigning the tasks to the team so that the process take place smoothly.

b. Data Migration and System Setup: This consist of software acquisition and configure the initial settings, chart of account and user access controls. Along with the data cleaned and sort will be migrated to QuickBooks online plus.

c. User Training and Testing: Ran some tests on the small data set to ensure that there is no problem in implementation and running before the full deployment and adjusted the system settings according to the business requirement. Provided thorough instructions on utilizing the new systems and clarifications for the user understanding.

d. Rollout and support: Introduced the QuickBooks online to the account department and allowed full ongoing support. Monitored the system performance and user feedback to identify areas for improvement.

- Team structure and Roles

We were a team of two person using the cross-functional approach where each member had multiple roles and responsibilities. Considering every member had their own expertise one person was on the accounting/management side and the other person was on the technical side managing the system setup and integrations. The management side set the milestone and developed timelines which were to be met in the given time period, had timely meetings with the stakeholder to show them the progress and result till the implementation. As regular communication plays an important role in successful implementation. The technical side was responsible for software setup, data migration, testing and user trainings

- Change Management

We informed the team about the implementation plan in advance through in person meeting with the employees along with the benefit for both, the company (accuracy, insights and efficiency) and for the employees (simplified tasks, Faster workflow and time saving). Different training style (in-person sessions, online support) were incorporated by us to ensure that the team doesn't have any difficulty while using QuickBooks Online. Change management involve transparency, flexibility and ongoing support. By tailoring the communication, training and support system according to the business and employees need, we can ensure the smooth and successful transition to QuickBooks Online.

Consideration and Challenges

- Data Security

QuickBooks Online utilizes industry standard data encryption to protect the business financial information. QuickBooks online offers granular access control so that a business can ensure that the financial information is only accessed by the authorized person. Business can implement two-factor authenticator that adds an extra layer of security. Moreover, the business can monitor user activity and setup alerts for any suspicious behavior to catch the security breach. Along with

that there are certain international regulations like GDPR and CCPA for data privacy that a business should be familiar with.

- Compliance and Regulation

QuickBooks online automates tax calculations and filing of various forms but it is essential to double check for accuracy, if the API is integrated. The business should keep an eye on the updated rules and regulations and ensure that QuickBooks online have updated those. QuickBooks online provide detailed audit trails to track the user activity and changes made to that data, ensuring compliance with the financial reporting requirement. Certain industries have some specific regulation, so the business have to implement additional tools or manual process to comply with those regulations.

- Scalability and Future Development

In start the company has only one business, later on if it plans to expand, they can upgrade the plan and add multiple businesses to the QuickBooks online. QuickBooks online offers various plans having higher user limit. The company can use the integrated tools and explore custom apps to add functionalities and tailor the system according to the business need that can be productive for the business. For advance customization, utilizing the QuickBooks online's API to develop custom integrations and automate the complex workflow. The business should invest in the ongoing training and resources to stay updated and explore the new potentials of the QuickBooks Online.

4. TESTING

Testing and Validation

Testing and validation are the critical step in ensuring the successful implementation. Through testing we ensured the basic of accounting which is double entry system, to check the complexity of the system we ran some triple entries in the system to ensure that everything is going smooth. Later on, we checked the receivable side which involved various steps from aging to expected credit loss limits and setting off the receivables moreover we inspected the payable side which involved the aging process till the setting off payables. Likewise, we ensured that all the existing

data was carefully migrated to QuickBooks Online. We checked the ending balances for every head and report to cross verify the completeness of data. Utilizing the report tools to check the report are up to the mark and successfully extracted. We also used the randomly sampled entries for the manual verification. Testing should be the ongoing process throughout the implementation phase so that we can identify and address potential issues early on and ensure the smooth operations and guarantee the success of the project

- Account Payable

For this we ensured that all the data has been migrated and checked for any missing data or any duplicates invoices or payments that can cause ambiguity at the end and compromise the data accuracy. We tested the ability of the system to capture the invoices in any format provided and stimulated the invoice approval so that we can check that it routes to the correct approvers based on pre-determined rules. We verified the system that it schedules the payment on the according to agree upon terms and tested various payment methods. We generated reports to ensure that vendor payment terms, lead time are efficiently working along with this we also checked the accounts payable aging to track the outstanding invoices and overdue payments to identify the potential cash flow issues. At the end we monitored key performance indicators like invoice processing time, payment accuracy and early payment discounts to measure the effectiveness if the automation system.

- Account Receivables

The Account receivables side of the accounting is tested to check the accurate and efficient revenue recognition and collection period. Verifying the accuracy and completeness of the company's customers data so that the correct invoice should be sent to customers and ensured that the payment is efficiently recorded against the correct information. We tested the system ability to automatically generate invoices based on sales order, verified that the customers statement accurately reflects the outstanding balances, payment history. We tested that if the system sends timely payment reminders to the overdue customers and ensured the proper allocation of customers payments to specific invoices and outstanding payments. For credit management and collection, we checked the system's capability to evaluate and manage the customer credit limits based upon the predetermined rules. We simulated the collection process to check the system identifies relevant account and guides collector through appropriate action.

We tested the system capabilities to track outstanding receivablesby age category and identify potential bad debts, the system is able to generate the customer's report on basis of payment trends, average days taken from receivables to revenue.

- Expenses

We tested the accuracy and effectiveness of pre-determined rules for automatically categorizing the expenses, the system allows the user to override automatic categorization in cases where it's incorrect or require nuance. We tested that how the system captures expenses data from various sources and verified the system ability to extract the key information from the invoices plus the user-friendly interface for manual entries if in case automatic system doesn't works. We implemented automated checks to identify the missing information and duplicate entries. We made clear and efficient workflow for the submitted expense report, considering the level of authority for approvals. We ensured the seamless integration with general ledger system to automatically approve the expense to the relevant account and the system should be able to generate user-friendly reports on individual and groups expenses.

- Revenues

We ensured that the system adheres to the relevant accounting standard and internal policies for revenue recognition at the appropriate time. We tested the system's ability to track and manage recurring revenue firm the contracts and subscriptions and also verified that the systems apply the tax rule and calculation on the basis of jurisdiction and client location. We tested that the how system extracts the data from different sources and verify the data exchange between different systems, implemented automated checks to identify missing information, duplicate entries and invalid formats. We ensured that the system is able to track unbilled revenues from completed projects or services to ensure timely invoicing and revenue recognition. Also check that system is able to generate the reports to analyze revenue generation from different products and services.

- Assets

Ensuring the system accurately handle depreciation requires diligent testing in the two key areas: methods and value. Firstly, verify that the system supports different depreciation methods like straight line and diminishing balance, and can apply them correctly based on the asset type and the accounting policies of the company. Secondly, test the system ability to handle user-defined

salvage value, the estimated remaining worth of the asset after its depreciation period. Verified the system can handle asset disposal effectively, deactivates depreciating assets from record and correctly reverse the accumulated depreciation. Thesystem capability to make the accurate asset register showcasing all assets, their value and depreciation schedules and the current status.

- Hr and Payroll

We checked the system calculates the salaries, wages, overtime bonuses and deductions based on the time in and time out sheet. Confirmed that the system guides the employees through benefits, accurately calculates the eobi amount and gratuity fund. Verifies that the system precisely track employee leave of absence, vacation time and overtime hours. We tested that the system is able to coupe up with the tax table and withholding and generate the accurate and compliant tax reports on which the Psid are to be generated. Then we check that the system is able to generate that bank letter which is to be sent to the bank for the disbursement of salaries.

- Bookkeeping

We tested the system ability to autonomously create the journal entries for invoices, payment, purchases and a wide range of other transaction, verified that how the different transactions are translated into specific journal entries. Implemented the rigorous data validation checks to guarantee the accuracy, completeness and balance of each journal entry, ensuring debits and credits are placed correctly placed for all accounts. Then verified that the transactions are accurately mapped to the correct general ledger account and test the system ability to maintain and complete account balances. We thoroughly tested the system internal control procedures and focused on the feature like dual approval and authorization requirement that minimize errors and prevent frauds.

- Internal controls

We conducted careful testing on the two key areas: access and transactions. Firstly, verified if the system implements detailed user roles and permissions, restricting the access to sensitive data. Tested the robustness of password security and multi factor authentication to further fortify your system against unauthorized access. Moving on to transactions, rigorously tested the system controls for detecting suspicious activity. This might involve identifying duplicate invoices or any unusual transaction. Finally verified the thoroughness of audit trail and documentations.

Ensured that the system carefully logs all user actions and transaction details by creating a comprehensive record for review.

5. DEPLOYMENT AND ROLLOUT

For deployment phase, we break down the into smaller group like (department to department). We started from account payable side then provided the training on that to the employees and later on moved to the other side of accounting (account receivables, Payroll and etc.). this was done to manage the workload, provide focused training and to address any initial issues before full adoption. Adding to that we asked the company to select any area and we will check that area either it is working efficiently or need any improvements. We were actively monitoring the system performance, user activity and feedback during and after the deployment phase.

- Account Payable

Data migration is the most important step in the deployment.it involves gathering all necessary information including vendor details, invoice data and other relevant accounting records from the current system. Later the data was cleaned and validated to ensure the accuracy and consistency. Any errors or inconsistences can cause disruptions and complication in the deployment. Finally, the data fields were mapped to the new system's structure to ensure the smooth integration and operations. The system was configured according to the company need and structure, started from establishing the comprehensive vendor master data and details like payment term, approval routes and contact information for each vendor. We defined the rules and escalation paths for the invoice approval, ensuring compliance with internal policies. We trained the team with the new system that involved system's new feature, functions and the workflow and ensured that the new system is completely understandable and proficient. User acceptance test was being conducted, where they tested system functionality, usability and alignment with the company's workflow. This approach allowed us to identify any potential issues before going live. Going live was the most exciting moment, where everything was carefully managed. We closely monitored the system performance, user adoption and key account payable metrics. This allowed us to identify the areas for improvement and refine the system to optimize its effectiveness.

- Account Receivables

The first step involved preparing the data of account receivable for data migration. This included gathering the data of customers, invoices data payment history and other relevant information. We conducted a thorough cleansing and validation of the existing data so that while deployment there should be no hassle. We configured the system according to the company's need and workflow, it involved establishing a detailed customer master data, setting up invoice generation and define the payment term. We provided an extensive training over how the account receivable automation works which included the training on the system features, functions and workflow and ensured proficiency. We also used user acceptance test to engage the accounts receivable user to test the system functionality, usability and alignment with the company requirements and identify any potential issue. Finally, managed the transition from the from existing system to the new system for a smooth handover and closely monitored the system performance, user adaption and key areas of account receivable like cash flows to ensure the need of improvement and optimization. We provided immediate support to address any issue or concerns.

- Expenses

We carefully prepared the expense data for the new system, this involved gathering the employee information, expense reports, payment records and policy documents from the existing system. We ensured that the expense data is carefully mapped in the expense data field in accordance to the new system structure. We established the system according to the company's need, which included defining the expense policy, approval workflow, spending limit and reimbursement methods. Additionally, it involved a well structure expense categorization system that aligned with the company policies and financial reporting requirements. Empowering the employees with confidence and knowledge in using the new system is crucial for successful adoption, this process involved providing extensive training on how to use system till reporting. We also conducted the user acceptance test to validate the functionality, workflow, user interface accessibility and the alignment with the business requirements, identifying the potential issues and fostering ownership among the users. Then we made the system live and ensured that the system performance, processing time accuracy and expense trend are up to the mark that allowed us to identify the areas for improvement and optimization. We provided immediate support to address any issue or concerns.

- Revenues

We mapped the data fields to the new system's structure for smooth integrations, we extracted the revenue data from the existing system and ensured the data accuracy and consistency. We configured the revenue automation system that suit the company needs and workflow, this involved revenue recognition model, product and services that are being offered by the company. We conducted the training for the staff to get familiar with the new system covering areas like order fulfillment, invoicing and reporting. We also conducted the user acceptance test to validate the functionality, workflow and user interface accessibility. Then we launched the system and ensured that the system performance, accuracy and success rate are up to the mark. We provided immediate support to address any issue or concerns.

- Hr and Payroll

We extracted the employee's data from the existing HR system, payroll system and attendance system and ensured that the data is free from errors and consistent so that it's easy to import it to the new system. We configured the Hr. and payroll system to align with the company policies, pay structure and the contractual terms along with that leave management, overtime bonus and pay rules were checked. We ensured that there is proper integration of the existing data with the new system. We trained their staff upon the new systems which covered all the functionalities like time in, time out reports, payroll processing and reporting. We conducted the user acceptance test to ensure the system efficiency, user interface and effectiveness. We made the system live, managed the transition and closely monitored the system performance.

- Bookkeeping

We extracted the historical transactions and account data from the existing system and ensured that the data is accurate and consistence throughout. We configured the bookkeeping system to match our chart of accounts, transaction rules and financial reporting requirements. This involved setting up automatic categorization rules, defining reconciliation routines and import/export of data. We conducted the training for the staff on using the new system covering the areas like transaction review, reconciliation procedure, reporting function. We also conducted the user acceptance test to validate the functionality, workflow and user interface accessibility.

Then we launched the system and ensured that the system performance, accuracy and success rate are up to the mark. We provided immediate support to address any issue or concerns.

6. FUTURE ENHANCEMENTS/ACTION PLAN

Revolutionizing the financial management, the integration of advanced technologies into accounting processed delivers unprecedented efficiency and insights. Automated data extraction, using the Natural Language Processing (NLP), that eliminates the tedious task of manual data entry. NLP effortlessly comprehends invoices, receipts and statements, accurately extracting and categorizing transactions with unmatched precision, saving invaluable time. Machine learning introduces predictive learning analytics, providing businesses with invaluable insights into future trends. This empowers informed decision making for optimized cash flow, budgeting and investments, contributing to enhanced financial performance. Real-time fraud prevention facilitated by AI algorithms, ensure vigilance by proactively identifying anomalies and potential fraud, thereby safeguarding assets and preserving data integrity. Moreover,personalized recommendation offers tailored reports and insights based on the individual business needs and historical performance, providing actionable guidance for the business to make informed financial decisions and achieve higher financial health.

Streamlining the workflow and enhancing collaboration are the essential elements of an efficient business environment and QuickBooks Online excels in providing seamless integration with various tools. These integrations extend to CRM, E-commerce platform, other business tools, facilitating automated data exchange and eliminating the need for manual data entry. This not only save the time but also boost the productivity of the company's financial record. Moreover, QuickBooks Online incorporates advance collaboration tools that enable real-time communication and document sharing among accountants, client and stakeholders. This is not only improving the transparency in financial processes but also accelerates workflows by fostering quick decision-making based on the updated information. The platform goes further by offering a user-friendly mobile app, empowering the user with access to critical financial data, invoices and reports goes on. This mobile empowerment ensures that business leaders to make decisions anytime and anywhere. Additionally, QBO integrates AI powered chatbot to handle routine accounting inquires and provide basic customer support. This automation allows human accountants to focus on more complex tasks, thereby optimizing resource allocation and

increasing the overall efficiency in financial management. With QBO, business can achieve a harmonious blend of technology, collaboration, and mobility for a streamline and productive financial ecosystem.

QBO ensures unparalleled security and compliance through cutting edge features Blockchain technology is leveraged to create tamper-proof, transparent record of financial transaction, bolstering data security and instilling trust. This platform automates compliance processes and guaranteeing the adherence to reporting requirement, thus reducing the risk of errors and penalties. Advance security measures such as multi- factor authentication and robust data encryption are in place to safeguard sensitive financial information and preventing the unauthorized access. This approach to security and compliance establishes QBO as a trustworthy and reliable solution for businesses seeking to protect their financial data.

QBO prioritizes an exceptional user experience and accessibility with innovative feature. The platform offers a personalized interface that adapt to individual user roles, enhancing navigation and productivity. Introducing voice-activated commands through cutting edge voice recognition technology add a layer of convenience and accessibility. User can interact with QBO using simple voice commands, streamlining task. Furthermore, the platform embraces inclusivity by providing support, ensuring businesses globally can access accounting tools regardless of location. This commitment to user centric design and accessibility positions QBO as a versatile and user-friendly solution for a diverse range of businesses.

7. CONCLUSION

This study shows that the how companies can move their manual accounting process to automated process. As the world is moving towards digitalization, so being from the accounting profession we need to adapt the changing environment. Accounting profession and the processes are evolving at a great pace with the increase in the integration and utilization of technologies plus the willingness of the person to use these tools as a competitive advantage. Financial services will evolve more rapidly and more technology dependent in nature, only question is that how much time it would take to evolve.The professional in this field have a positive attitude to the usage of accounting automation and they think that the people working with them should also adapt these changing environments and should not hesitate to move on. On the other hand less experienced professionals are more attracted towards automation and feel more comfortable, as

they have to work less, the results for the experienced professional are more or less similar concluded by the past behavior(Limayem et al, 2007) and it was expected for the professional with more work experience to be more reticent to automation, Young generation of professional in the field of accounting represents the millennial generation (White et al.(2020)and it has as a defining charactertics(PWC, 2020).Hence,This project turned out a good investment of the company.

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