

# **Importance of Change Management and Adaptation in the Field of Digital Transformation with Specific Focus on Digital Cfo**

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## **Abstract**

### **Introduction**

In today's day and age due to the advent of technology in the digital era. digitization plays a very crucial role in the MSME sector of India. This mentioned MSME sector in India is further expanding rapidly by the emergence of the ONDC providing a level playing field for all suppliers and buyers thereby substantially increasing the number of buyers and sellers that results in much more information documents of buyers and sellers to a very large scale. These information documents are being transitioned into digital form from the physical form, In this process of transforming of documents from the physical form to the digital form, information systems is the backbone of delivery of the process. These Information Systems in the digital platforms need to be adapted accurately at regular time intervals by accurately combining change management and technology to devise the optimum strategy to internally adapt the information systems of the digital platform in order to sustain with maximum efficiency in the external environment that is dynamically changing and evolving in this digital era. For this the Digital CFO platform that is an SaaS has demonstrated exemplary competence by implementing adaptation in the form of Artificial Intelligence in the information systems of the digital platform thereby maximizing the efficiency of the mentioned digital platform in the processes of finance management , accounts, book keeping, reporting and analytics with maximum efficiency and sustainability. Therefore, change management and adaptation indicates to be highly crucial in the field of digital transformation.

### **Objectives**

The Objectives of this research paper are to endorse the importance accurately combining change management and technology to formulate the optimum strategy for Information Systems adaptation which in this case is the SaaS platform of DigitalCFO used for the digitization of financial documents. As Information Systems form the backbone of delivery for the digitization platforms including the SaaS platform of Digital CFO, need constant adaptation internally for external sustainability. So the Co-efficient of Progressive Adaptation i.e the new method of Information Systems efficiency management examined and analysed in comparison and contrast to existing methods is aimed to be indicated as the solution.

### **Methods**

As mentioned above, existing methods of Information Systems efficiency management were examined and analysed. This was done by conceptual research in the form literature review by viewing more than 50 citations published on and after 2021 on the topic of methods used for information Systems efficiency management such as T.P.M., T.Q.M. , O.E.E. and D.M.A.I.C. Gap analysis was used to endorse this new method -the Co-efficient of Progressive Adaptation that was also used to ontologically link the aggregate findings from the conceptual research to the aggregate seminal findings from the empirical research thus endorsing the result.

## Result

Efficiency of this Information Systems platform by the implementation of the Co-efficient of Progressive Adaptation. The results pre-adaptation and post adaptation were significantly different specifically by the endorsement of 70% increase in efficiency, 90% increase in accuracy and per person yield increase by 3 times.

## Conclusion

Thus, the Co-efficient of Progressive Adaptation is very crucial and to be implemented for Information Systems adaptation particularly in the Information Systems forming the backbone of delivery for digitization platforms as demonstrated in this example of the SaaS platform of Digital CFO. Use of AI included in the Co-efficient of Progressive Adaptation in this mentioned SaaS platform demonstrated significant increase in efficiency due to internal adaptation for external sustainability. This internal adaptation involved the accurate combination of change management and technology that in this case included Knowledge Management Systems , Cloud integration and Big Data analytics owing to the paramount increase in the amount of digital data that has to accurately managed using the principle of knowledge management.

**Key words: Change management, Adaptation, Digitization, Information Systems, Efficiency, Sustainability.**

## Introduction:

In today's day and age, the advent of technology has immensely impacted every sector practically with technological advancements and digital disruptions. This well applies to the MSME sector in India as well that is adopting digitization very rapidly. With the introduction of Industry 4.0 and IoT and enhanced technology access, the MSME sector in India has practically evolved into a new "realm of digitization and technology with practically everything becoming digital. With practically everything becoming digital very few documents containing information remain in physical copy thereby endorsing the rapid rise of digitization in the Indian MSME sector that is strengthened by the added advantage that digital information may be easily accessed by the information owner at any time in any location .Thus all information from physical form is being transformed to digital for through the process of digitization thereby making all documents containing information present in the **digital** form only .This mentioned digitization and technology even changes the modulus operendi of consumer behaviour and marketing operations as everything is online "practically on an app. In the sector of digitization **Information Systems** serve as the **backbone** of transforming information to the digital form from the physical form thereby resulting in enabling efficient access by the users , manipulation and optimum use of the data across the organization using the principle of knowledge management that is to provide the right

information to the right person at the right time . As Information Systems form the backbone of delivery the concerned information systems require constant adaptation from time to time at regular time intervals. As change management is highly crucial for adapting to the digital ecosystem from the physical ecosystem, the digital transformation will have to the accurate combination of technology and change management is highly crucial on a timely basis for sustainability. This mentioned accurate combination of Change Management and Technology at regular time intervals specifically refers to the timely adaptation of information systems used as the backbone of transforming information from the physical form the digital form. Therefore this study aims to explore the accurate adaptation strategy that can optimize the efficiency of the information systems used in the digitization process of converting information from the physical form to the digital form . Thus innovative organizations like DigitalCFO take lead in the area of digitization be enabling the MSME sector organizations in India as well as other organizations digitally transform their documents of information from physical form to digital form thereby digitizing the information. This mentioned information documents being transformed to digital form from the physical form refers to the documents containing information about financial management , accounting, book keeping, analytics and reporting. This process of digital transformation of information documents that have information systems as the backbone of delivery need to be

adapted in order to maximize their digital output and sustain in this digital era environment that is dynamically changing (Dash, 2023; Tifliyah, 2021; Brostrom, 2020; Rane, 2023; Japee, 2023; Arslan, 2020; Khan, 2022; Sağlam, 2021; Gazi, 2024; Sofi, 2020)(Al-Hawary S. I., 2020; Al-Gasawneh J.A., 2021; Vicente Guerola-Navarro H. G.-G.-B.-A., 2022; Vicente Guerola-Navarro J. S.-G.-G.-B., 2021; Migdadi, 2020; Alshurideh, 2022; Sharma K. a., 2022; Malik, 2023; Mahajan, 2024; Islam, 2024, (Sahoo, 2020; Mirlay, 2019; Ji, 2022; Jain, 2021; Ji, 2022; George, 2022) (MIRLAY, 2019).

#### **Literature review:**

The presence of the ONDC in the Indian MSME sector increases the number of buyers, suppliers and sellers as well creating much more opportunities in the MSME sector. With the MSMEs being the backbone of the Indian economy, the optimum strategy combining the cutting edge technology and accurate change management at the “nth” moment of time indicates very crucial necessity for sustainability and to achieve a competitive advantage in terms of optimum digitization in the required operations. This is due to the crucial role played by the process of digital adoption in transforming of accounting and financial management of the MSMEs. This process of digitization includes the digital transformation of processes such as book keeping, accounting and financial processes all which follow the principle of providing the right knowledge to the right person at the right time as demonstrated practically in the industry by companies like Digital CFO thereby stimulating progress in this research study based on similar research done and published and practically implemented in the industry in the sector of Information Systems used in the corporate banking sector for reporting the activities of corporate Relationship Managers to the higher management that is well required in today’s day and age given that the financial world standing at critical inflection point where the position of the Chief Financial Officers (CFOs) are highly enhanced to much higher authoritative roles requiring accurate information optimized by integrated Knowledge Management Systems integrated in the mentioned information systems used to deliver the required information that is now digitalized. Furthermore with 8.1% of

C.F.O.s transitioning to the position of C.E.Os on a global scale the information they manage is both vital and sensitive thus requiring accurate information systems having accurate knowledge management capacities therefore needing constant adaptation at accurate time intervals. Therefore the informatoin systems used by the C.F.O., C.E.O. and the C.F.O. that has transitioned to the C.E.O. need to be adapted internally in order to face the external situation that now requires the mentioned information systems to integrate with digitization , A.I., blockchain and analytics (Digital CFO, 2025; Shrikanth, 2025; Jayachandra Bairi; S.J. Ho, 2008) . For this just technology will not be adequate. The accurate combination of change management and technology together will be required to device the optimum strategy at the right time. This will even enable and enhance the process of real-time data ecosystems that that empower organizational decision making by the C.E.O., C.F.O. and in this case particularly the C.F.O. who has transitioned into the C.E.O whose roles are now being transitioned to the position of key digital transformation architects ensuring organizational agility to thrive in a dynamically evolving and changing environment effected by several external factors such as economical volatility, fluctuating inflation and deflation, fluctuating exchange rates , regulatory complexities in addition to the rapid technological advancement that includes Industry4.0 and Society 5.0. both that have Information Systems as the backbone of delivery. Therefore the information systems need to be adapted at accurate and timely intervals as mentioned using the **Co-efficient of Progressive Adaptation** which states that : “ *The rate of change of progressive adaptation of the concerned information systems, is directly proportional to the efficiency of the same. Vice-versa.*” (V., 2021)

Information Systems Architecture is an aspect that continuously changes in organizational aspects that are to be aligned with technological aspects that are continuously changing at regular time intervals thus endorsing systematic planning along with the steering of information systems architecture as one of the prevailing disciplines. (Yellin, 2006; Ross, 2003; all, 2013; Merali, 2016; PILARCZYK, 2016; Ghaziri, 1998; Ngelechei, 2016; Obasan Kehinde A, 2012).

The adaptation capacity of the concerned information system to adapt to the dynamically changing environment is widely acknowledged to serve as an enabler of competitive advantage. (Raphael David Schilling, 2017; Abdisalam Issa-Salwe, March 2010).

Information system re-configuration and internal restructuring of the Information Systems Architecture can enable interlining of the technological aspects and organizational aspects. (Thomas Guyet, December 2007; Dang, 2024; Jean, n.d.; Witlox, 2016; Mulky, 2013)

Practically in the industry, by applying adaptation in the form of automation and Artificial Intelligence in the Information Systems forming the backbone of delivery of the digital platforms, the mentioned Co-efficient of Progressive Adaptation can be referred to the digital platforms of Digital CFO that are at the forefront of transformation in this present day digital economy in terms of equipping C.E.O.s. and C.F.O.s with the required insights and tools required to achieve their target. This is because of automation's role in increasing efficiency, reducing human intervention, reducing costs, increased productivity and so on thereby ascending the information system up the value chain (Shrikanth, 2025; Shoo, 26 September 2017.; Cole-Ingait; Mohamed Eslam Hassan, 2015; Management Study Guide; Panagiotis G. Trivellas, February 2013; Ngelechei, 2016) (dangolani, 2011).

Though research in the past endorses these findings, in today's digital era of technological advancement, research has not yet specified on the "Nth" moment adaptation of information systems by implementing the optimum strategy devised by the accurate combination of change management and technology at the right time thereby indicating scope for this research to be done further indicating the need for "nth" moment adaptation of information systems in order to maximize the efficiency of the concerned information systems and also obtain sustainability with the competitive advantage (Jayachandra Bairi B. M., 2011; Rhee, Cho, & Bae, September 2010; Asmah, Ofoeda, & Gyapong, August 2016; Rejikumar, December 2015; Thomas Guyet, December 2007; Canadian HR Reporter, 01/2011) (Rhee, Cho, & Bae, September 2010).

## **Objectives**

The main objective of this research work is to endorse the indication of the Co-efficient of Progressive Adaptation as an important new method for Information Systems efficiency management particularly in the Information Systems forming the backbone of delivery for digitization which in this example is the SaaS platform of DigitalCFO. This research aims to create a holistic integration combining the conceptual findings from literature review and seminal findings from empirical research conducted in the industry in the domain of Information Systems' efficiency management that thereby strengthens the indication of how this new method of Information Systems efficiency management is novel essential and includes gaps present in the existing methods of Information Systems efficiency management.

## **Methodology**

Therefore the methodology in this research study aims to progress the requirement of implementing the Co-efficient of Progressive Adaptation to the concerned information systems to internally adapt the information systems of the digital platforms in order to sustain external externally at the current time interval and to adapt by re-configuring the information systems to adapt with the competitive advantage and sustain in the future environmental situation that keeps changing dynamically. Past research done in this domain focusing on the efficiency management of information systems used in the corporate banking sector of India to report the activities of the corporate relationship managers PAN India was used as the basis for the progress of this research study. As this mentioned research published in 2019 explained the Co-efficient of progressive adaptation in the mentioned information systems, the study elaborated that constant adaptation part of the Co-efficient of Progressive Adaptation did enable the concerned information system efficiency to increase thereby reducing manual intervention requirements and reducing the process time of more than 410 man hours per anum. This seminal finding is from empirical research also observed that not adapting the concerned information systems accurately on a timely basis, steadily reduces the efficiency of the information systems over a period of time as

observed in another information systems platform that did not implement the Co-efficient of Progressive Adaptation and adapt the information systems internally in order to face the external situation which in this case was increased information load to be processed. These findings in aggregate are ontologically linked to the progress of this research study done focusing on the information systems used in the SaaS digital platform of Digital CFO using the Co-efficient of Progressive Adaptation in the field of information systems as the ontological link as information systems of the digital platform which in this case is DigitalCFO is taken into focus for analysis. As the SaaS platform of Digital CFO is used for digital transformation of documents that contain information pertaining to finance management, accounting, book keeping, reporting and analytics, this process of digitization that has information systems as the backbone of delivery needs constant and timely adaptation to sustain with a competitive advantage and provide maximum efficiency of the digital platform. This ontological link using endorsed gap analysis found in the past research that is timely adaptation i.e. “nth” moment adaptation of the information systems implementing the optimally devised strategy that accurately combines change management and technology using the Co-efficient of Progressive Adaptation creating a holistic blend of past research , current publications by Digital CFO and practical implementation of the Co-efficient of Progressive adaptation in information systems applied practically in the industry demonstrating the result thereby enabling the aggregate findings thereby endorsing scope for the progress of this research on information systems adaptation in this digital era of the dynamically changing environment using the information systems of the SaaS platform for digitization used by Digital CFO as the example for this research. Further on the research findings as mentioned were ontologically linked to the practical industrial applications of Digital CFO using the Co-efficient of progressive adaptation in order to create the holistic blend endorsed by the hypothesis. The SaaS platform of Digital CFO were examined before and after adaptation , and the important research questions were :

- What is the percentage of efficiency increase when tested in the lab?
- How long did the **old method** take to complete the process?
- How long does the **new method** take to complete the process.
- **What was the adaptation done ?**
- What are the benefits of the adaptation.
- What is the reduction in errors?

#### **Practical examination:**

The SaaS platform of Digital CFO was examined and the details are as follows:

The method used known as the ‘ **Present Method** ’ in the **Co-efficient of Progressive Adaptation** is as follows :

- Collate accounting data.
- Generate accounting entry and post entry to ledgers.
- Identify relevant internal controls and comply.
- Collate audit evidence and store it in different location/files.
- Validate data/audit /reconcile and finalize periodic accounts.
- Update Accounting reports (AR/AP Age analysis and so on).
- Migrate data to excel and prepare periodic MIS reports and analysis.
- Manage up-stream value additions manually and/or semi-automated systems.

This method appeared to be very elaborate , time consuming and had room for errors. Thus **Automation** was used as the form of **adaptation** : **Adaptation** in the form of **Automation** was implemented thereby resulted in reducing the number of steps to **two steps** from **8 steps**. Therefore the **two steps** method was the **optimum efficiency** method which was as follows:

- Collate accounting data .

- Input the data into Digital CFO by answering simple questions , upload supporting evidence and click the "submit" button.

The steps now longer required known as **Eradicated Steps** in the Co-efficient of Progressive Adaptation are as follows :

- Generate accounting entry and post entry to ledgers.
- Identify relevant internal controls and comply.
- Collate audit evidence and store it in different location/files.
- Validate data/audit /reconcile and finalize periodic accounts.
- Update Accounting reports (AR/AP Age analysis and so on).
- Migrate data to excel and prepare periodic MIS reports and analysis.
- Manage up-stream value additions manually and/or semi-automated systems.

Thus there was an increase in efficiency endorsed by the answers to the research questions mentioned in the methodology section above.

### Results

Firstly , the adaptation in the form of automation resulted in increased efficiency by the 'Optimum efficiency' method as the adaptation resulted in a developed and transformative architecture and user interface that enables the user to select via the ' drop down' option and answer simple natural language questions to process any transaction. Further more, with regard to the research questions:

- When Digital CFO's SaaS platform used for digitization was lab tested post adaptation what was the noted efficiency increase in terms of percentage ?

**Answer:** The observed 70% efficiency increase by the clients -Big 4 market players.

- How long did the **old method** known as the 'Present method' of the SaaS platform of Digital

CFO that was adapted take to complete the process?

**Answer:** The old method known as the 'Present method' consumed **45 seconds per transaction**.

- How long does the **new method** known as the '**Optimum efficiency**' method of the SaaS platform of Digital CFO that was adapted take to complete the process.

**Answer:** The new method known as the '**Optimum efficiency**' method consumes **10 seconds per transaction**.

- **What was the adaptation done ?**

**Answer :** The Adaptation was automation and cloud in the form of adaptation represented by "**θ**" in the Co-efficient of Progressive Adaptation.

- What are the benefits of the adaptation for the SaaS platform of Digital CFO that was adapted?

**Answer :**The benefits noted post adaptation are :

- ✓ **70% increase in efficiency.**
- ✓ **90% increase in accuracy.**
- ✓ **Per person yield** gone up by **3 times** in comparison to the competitors.

- What is the reduction in errors?

**Answer:** There was a **90% reduction in error rate** post adaptation.

### Hypothesis

The **Co-efficient of Progressive Adaptation** a.k.a. the **CPA** states that "*The rate of change of progressive adaptation of the concerned information system is directly proportional to the efficiency of the same. Vice-versa*" (.V., 2021). This is explained as follows:

Optimum efficiency (Oe) = Present methods(Pm) **θ** - Eradicated steps (Es)

With specific focus on the SaaS platform of Digital CFO , the **inputs** and **outputs** in terms of digitization of financial/ accounting information and book keeping remain **constant** for the old method and the new method . The **variables** present in the mentioned equation happen to be:

- The **Independent variables** happen to be the Present methods (Pm) and the Eradicated steps (Es).
- The **Dependent variables** happen to be the  $\theta$  that represents the adaptation which in this case was automation and cloud as the form of adaptation and the Optimum efficiency(Oe) method.

The **direct proportionality** between the Optimum efficiency (Oe) is endorsed by the **70%** increase in **efficiency** and **90%** increase in **accuracy** along with the **yield per person** increasing by **3 times** when compared to competitor platforms.

This also includes and endorses the **inverse proportionality** between the 'Optimum efficiency' (Oe) method and the Eradicated steps (Es) because when the **6 steps** no longer required were eradicated, the efficiency increased as mentioned above.

The  $\theta$  multiplied by the 'Present method' or the old method which in this case of the SaaS platform of Digital CFO is the **8 steps** method **deducted** the **6 steps** no longer required resulting in the increased efficiency, sustainability and the competitive advantage.

### **Discussion**

Digital CFO an SaaS based platform provides many benefits due to the advancement by accurate and timely adaptation information systems of the digital platform such as secure solutions, real-time accounting data and so on. Further more, data reliability can be rest assured by this foundational digital transformation that is essential for the integration of advanced Artificial Intelligence and can also aid in long term growth along with enabling the MSMEs to streamline operations as required, enhance compliance, increase scope for innovation and efficiency in a competitive landscape. All this does require accurate and timely adaptation internally in order to adapt to the external environment that is dynamic and constantly changing. Specifically, the information systems of the digital platform which in this case is DigitalCFO, is to focus on accurate and timely adaptation of the mentioned information systems of this digital platform in order to obtain maximum efficiency and sustainability of the digital platform for the current

period of time. As the external environment is changing dynamically at regular time intervals, the internal adaptation of the concerned information systems in order to face the external environment is very crucial thereby needing to implement the Co-efficient of Progressive Adaptation in these information systems to maximize efficiency and sustain with a competitive advantage at future time intervals as well. This very much includes implementation of Artificial Intelligence, robotics, Big Data and Cloud as the amount of information keeps on increasing and the amount security required to maintain the confidentiality and accurately manage the information using the principle of Knowledge Management that is providing the right information to the right person at the right time needs to be updated accurately on a timely basis to sustain in the present era of time and further adapt to sustain in the future environment for which constant adaptation of the information systems is required internally in order to face the external dynamically changing environment. Thus, the Co-efficient of Progressive Adaptation which states that the rate of change of progressive adaptation of the concerned information system is directly proportional to the efficiency of the same, vice-versa is highly applicable particularly when Cloud, Big Data, Robotics and information systems need to be implemented with the Knowledge Management Systems to the information systems of the digital platform which in this case is Digital CFO (.V., 2021). Altogether this constant adaptation implementing the mentioned Co-efficient of Progressive Adaptation to the concerned information systems internally in order to enable the digital platform to sustain externally in the era and future environment that changes dynamically. For this, the **Information Systems** forming the backbone of delivery need to be adapted on a timely basis by accurately combining change management and technology thus devising and implementing the optimum strategy for the concerned information system which in this case is the SaaS platform of Digital CFO. For this the Co-efficient of Progressive Adaptation indicates to be the solution as current solutions available for information systems efficiency management such as T.P.M., T.Q.M., **D.M.A.I.C.** particularly, Six Sigma, Lean, Big Data Ishikawa, and

Kanban model are effective but do not specify crucial requirements of information systems such as accurate combination of change management and technology to devise and implement the optimum strategy for the concerned information system , timely adaptation of the information system, specific adaptation and automation of the concerned information systems, eradication of steps no longer required in the information systems process and efficiency maximization focus. The other gap areas in the field of information systems efficiency management covered by the Co-efficient of progressive Adaptation are downtime loss, speed loss, quality loss, quantity loss , loss of setup and yield , deep learning and simulation virtual modelling, The three pillars of the industrial revolution -People ,Process and Technologies. Data collection and predictive analysis, Neural networks, fraud detection operational challenge in big data analytics and finally how the reduction of waste is directly proportional to the increase in efficiency. Thus the CPA endorses the direct proportionality between the IS efficiency to the progressive IS adaptation at constant time intervals (Sharp, 2004; Gurtu, 2022; Pai, 2023; Pierre, 2023; Li, 2022; Michlowicz, 2022; Rabelo, 2022; Lucantoni, 2023; Alice, 2021; McDermott, 2023) (Singh, Analysis and directions of OEE and its integration with different strategic tools, 2020; Pieroni; Daniyan, 2022; Delgadillo, 2022; Khan B. a., 2020).

#### **Conclusion :**

Applying the Co-efficient of Progressive Adaptation in the information systems that form the backbone of delivery in transforming physical data to digital data can indeed optimize the process , maximize efficiency enabling maximum work to be done in a minimum time interval due to automation and Artificial Intelligence integrated into the concerned information systems along with the Knowledge Management Systems (K.M.S.) when the timely adaptation is done by accurately combining change management and technology together thereby devising the optimum strategy to implement in the concerned information systems of the digital platforms. This mentioned adaptation also includes the integration of cloud, Big Data analytical applications and automated analytics in the Knowledge Management Systems, and robotics that

will further enhance the concerned processes of financial management, accounting and book keeping. The adaptation with the Knowledge management Principle will also solve certain current day challenges such as lack of reliable data , outdated technology and compliance issues thereby providing accurate information through the accurately adapted information systems/technology of the digital platform thereby enabling the digital platform to complete the required processes such as accounting, reporting, financial management , book keeping and decision making in a much more efficient manner in the shortest interval of time thereby not just maximum efficiency of the digital platform but also enable sustainability and the competitive advantage . This will be due to the accurately adapted the information systems forming the backbone on a timely basis implementing the optimum strategy that was devised by accurately combined technology and change management internally in order to face the external environment that is dynamically changing and evolving in this digital era.

#### **Scope forward**

The study aims to implement this research practically in the information systems of the Digital CFO platform and further prove that the accurate and timely adaptation of the information systems in the digital platforms can maximize the efficiency of the digital platform in terms of financial management, book keeping, accounting, reporting , analytics and decision making and along with this maximum efficiency can also provide sustainability and the competitive advantage.

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