

Original Article

Optimising Material Supply Services through AI based Office Automation

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Abstract - Material Supply is highly important in the competitive world. Waiting for materials is one of the eight big losses in lean manufacturing. The availability of materials in the right places is of prime importance in industrial stores, sales centre, and material service after the Principle of Automation. In the procurement of materials, office automation plays an important role in making materials available for manufacturing at the right time. Though Material requirement Planning and Manufacturing requirement Planning were automated with computers, they must be fine-tuned with technological advancements. Office automation tools are preferred in this research. Service innovation is key to sustainable strategic advantage differentiation across the company and markets. A manual and conceptual task in management planning plays a most significant role in the basic principles of office automation. Recent advances in automation include using digital inventions not only for office tasks but also for automated office functions such as managing labour resources, availability of materials, categories of materials, consumption patent of materials, cost of materials, the procurement cost of materials from various supplies etc. As a result, many automations, typing letters, visual transformation, and updated technologies are encrypted and communicated in virtual form. However, conceptual experimentation efforts that inquire about these improvements were dispersed throughout a broad span of academic research, contributing to an absence of consistency in major results and applications. The main objective of this article is to explore the various approaches in Materials supply and service automation with the help of advances in Artificial Intelligence (AI) with its additional branches. The past literature studies were based on knowledge of developments in intelligent automation and service sectors. It offers several new strategic options to enhance the company's business value. This investigation reveals the following areas as well (i) varied technologies associated with automation, (ii) value-based intelligent automation innovations in knowledge and office sectors (iii) finally addressed the research gap in optimisation of office automation for ensuring the supply of materials at the right time.

Keywords - Material supply, Service, Artificial Intelligence, Innovations, markets.

1. Introduction

Scientists and bloggers often predict that the mechanisation of various working conditions, including reliable, repetitive labour, will increase unemployment. Service discovery is considered an important resource variation and development, and the amount of scientific research in this regard has exploded in recent years [1-2]. Ostrom Amy et al. 2015 [3] explored the service innovation classifications of three strategic priorities for quality of research in office automation. The significance of service innovation given priority and the wide range of participants, scenarios, and situations, broadening our knowledge of originality and the paradigm in which it has been perceived, seems to be a top concern.

Business innovations are providing an eminent role in supporting the government and corporate processes such as documenting, visa distribution and problem-solving skills of customer care predetermined to accept the objection faced by the purchaser. It is one of the fundamental characteristics of evaluating the business surroundings, as an effect of providing the minimum effort to achieve the effective business and enable more concentration on that

value-added processing. To meet the needs and facilitate and protect corporate growth and productivity, the efficiency and accessibility of the same service functions must change as modern society gradually becomes faster and more industrialised. This concept is called a single window system that can enable different service operations in one place, accelerating the satisfaction in accepting and licensing. This system has often proven that top government officials have consistently established a high level of service based on their client needs, especially companies of all sizes that are considered the backbone of the economy.

Over the next ten years, scientists expect artificial intelligence (AI) to outperform humans in various functions, which could be an alternative to manual effort due to recent updation in Artificial Intelligence (AI) technologies. Artificial intelligence advancements will have far-reaching social implications. AI refers to a group of techniques that can mimic or outperform cognitive beings, notably in cognitive tasks, including reasoning and problem-solving skills [4]. Now applications of AI extend to machine learning, cognitive reasoning, language



processing, systematic approach and robotics. Advances in AI's latest technologies and subdivisions focus more on improving the efficient automation that we call intelligent automation. It has been observed that learning algorithms are now being constructed to optimise intellectual functions.

They claim that AI's use in robotic applications has increased the possibility of automating human labour jobs. In intellectual and service professions, analytical and human duties are prevalent. Manual and intellectual works are normally found in knowledge and service works. Cognitive is innovative, creative and unconventional, and it enables the use and creation of knowledge. These works of knowledge are used in many professional fields such as education, pharmacology, information and communication and consulting.

Service works are the process of utilising one resource for multiple benefits to others, such as office cleaning, security, administrative works and diverse as working in retail and acquiring more information for consulting. Some of the following sources are the main evidence for the future scope of Artificial Intelligence (AI), such as performance evaluation of tasks [5], changing hardware in appropriate commercial products [6], and labour automation [7]. Artificial Intelligence (AI) service automation provides highly reliable additional information. This article reveals the past literature reviews and communal and ethical impacts of AI.

Intellectual and industrial labour responsibilities have traditionally been considered too difficult to automate, requiring greater intellectual flexibility and physiological versatility [8]. However, AI technologies are significantly developed, expanding future scope and capabilities into relevant applications. The applications include retail workshops, truck-driven transportation, translating languages and highly crucial surgery[9]. According to [10], significant professional and organisational assistance labour and many service jobs in the United States will probably get mechanised. This technology makes dramatic changes in the service work of AI and gains knowledge. This effect on cognitive and customer employment separates the current revolution from other industrial innovations, such as the modernisation of industrial production in the nineteenth century or the use of business machinery for administrative and service functions in the current century.

Companies are now creating a new strategic opportunity to enhance business value while transforming information and service. With automation to intermediate perceptual employment, recent developments in AI may enable businesses to create new economic value. Organisations may also decide to replace high-skilled labour with additional AI resources or shift people to focus solely on the most challenging, non-routine cognition performance [11]. However, the possible impacts of AI service automation are enhanced with allowable disagreement. Because of this lack of agreement, there seems to be little coherence in the innovative tactics that

must be devised to achieve value for the business through Intelligent Systems [12]. As a result, there is an urgent need for investigation, which analyses the most recent advancements in AI and explores potential implications for using Intelligent Automation for business value.

As the growth and advancement of office automation have continued since the turn of the century, the workplace is undergoing a rapid transformation to meet the needs of the current era and understand the effects of all these automated machines. The foundation of this inquiry is understanding how secretarial work affects the worker's productivity, adaptability, job security, suitability for the office work he performs, and strength and conditioning designed to help him meet the challenges of his ever-changing work environment. The results of this investigation will reassure officials who believe that their expertise is no longer needed in the workplace due to new office automation. It should be done to raise their spirits and improve their performance.

2. Principle of Automation

Automation technology is one of the main office automation tools. Two main features are followed in office automation: transferable automation and data processing automation. (Fig. 1) shows the significant variable involved in office automation. Strongly encourage the use of computing in automated office, data storage, and operating system restructuring and upgrade operations, as well as data transfer, completion and collection of a wide variety of systems through computerised technology in online databases. Although e-commerce and automation offices are expected to become popular in China in the future, our research has revealed significant high-energy office performance. As technology and individuals improve their programming with each other and make everyday life increasingly intelligent, intellectual features in data communications represent a very significant influence. The current scientific age is constantly updating processes, their benefits, and properties to be used, and it has achieved a positive path of evolution.

2.1. Conceptual model for service works

Frey and Osborne (2017) [10] explored the roles and responsibilities of AI in computerisation; automation is defined as computer-controlled tools such as machine learning and remote-controlled robotics. Since the digital upsurge of modern times, financial professionals have been using the term "digitisation" to replace manual effort by computer systems to perform operations. The interpretation has already been expanded to incorporate new automation technology and categorise learning algorithms such as "the rise of automation other than the path of computer-controlled hardware" and portable artificial intelligence [13].

'Virtualisation', on the other hand, is a term used to describe the interactions and functions between individuals in the physical universe but is now accomplished through interactive screens [14]. Interactive design and human-

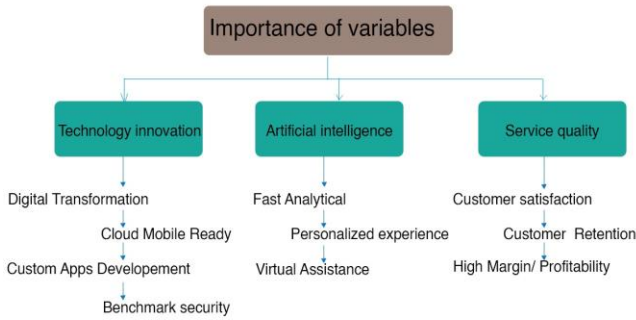


Fig 1. Process variables in office automation

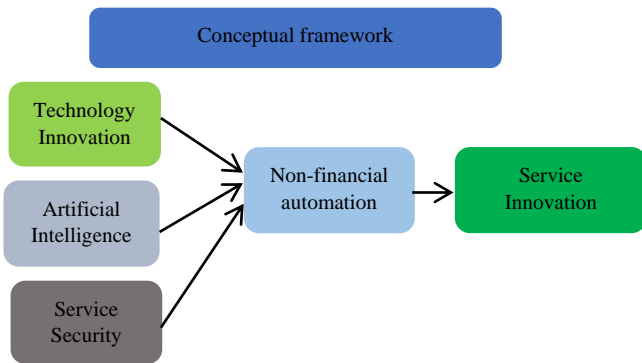


Fig. 2 Conceptual framework

computer communication studies have developed the concept of "automation". Automation is "the execution of a task by a computer operator, traditionally performed by a human being [15]. The most commonly used word is virtualisation, computerisation, and mechanisation. The following aspects developed the conceptual framework: Information system, strategic planning layout on automation and gathering of OA existing research outputs [16]. The strategic structure of the conceptual model, designed by seven elements, is discussed in detail below. (Fig. 2 and 3) shows the conceptual framework and various key elements of office automation by various service innovation tools.

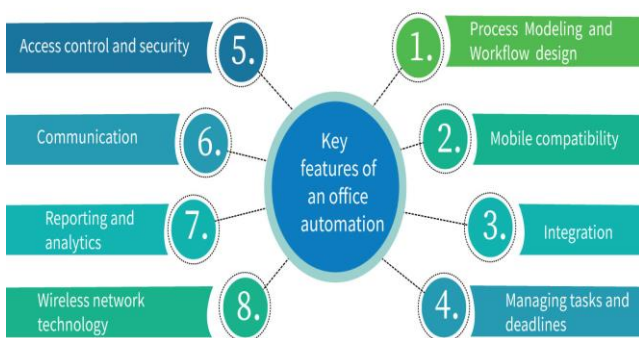


Fig. 3 Main key features of office automation

2.2. Assigning Tasks

Researchers have developed a different application of technology to automate work tasks. The task is assigned to a group that can formulate the OA strategic schedules. OA

should include participants representing key consumer communities, the company's operating domains, information processing and independent experts, and some negatively affected sectors, according to past research outputs [17]. Assigned members are also technically competent, highly knowledgeable and qualified in business, and their opinions are weighed against other organisations. The authority of task groups should need better managerial and technological skills.

2.3. Demonstrate the objective

Office automation is expressed as the main vision of the outcome; it can be enhanced by strategic planning of assigning tasks. It should be associated with business plans to enable office automation achievements. The objective is to grow to meet the set of goals, including economic considerations, organisational policies and local and global concerns, customer experience productivity and performance requirements.

2.4. Analysing the environments

Environmental process analysis collects all information about office automation's internal and external factors. The factors include cost effectiveness, demands, characteristics of office automation users, value-added uses, workers' resources, training needs, standardisation, implantation method and workplace positives and negatives in this implementation of office automation. External factors include creating OA demands by external functioning groups, outside organisations' use, the scope of office automation, services, financial and assessable changes in external surroundings that can affect office automation.

2.5. Setup the objectives

OA policies define target results. The goal is to have measurable aspirations that are sufficient over a specific period. The final implementation plan should include the goals and objectives developed from the objectives.

3. Methodology

Methods are action planning in which the purpose, scope and goals of the task are achieved. It includes the following process, (a) basic planning setup process and long-term policies, (b) ranking priorities based on the tasks, availability of resources and processing, and (c) target performance, scheduling and demands for short-range plans. The senior management should approve the strategy for determining the priorities for tasks, initiatives, and activities to be completed.

3.1. Assumptions and recognising

These implications in the scope, objectives, objectives and strategies of office automation should be explored. It is important to identify the key success factors (CSFs). There must be justifications for and against many elements of the proposal. Identifying potential conflicts with employers, consumers, and other parties is important. Solutions to the OA proposal should be explored. It will require a return to the early stages of design.

4.2. Office automation Guidelines

The office automation guidelines are the different alternatives, standard rules and regulations, and strategies. The guidelines must include the assessed device, hardware and software, maintenance, compacting and consulting. Because they all affect the office automation properties such as organising, staffing and remoting the OA effectiveness. The guidelines are constructed to develop resource allocation and appropriate uses.

4.3. Practical features of Office Automation

4.3.1. System configuration and functions

The precise setup of the system hardware devices is based on the different configurations of the system. As is the case for other areas of office automation mentioned so far, there is no standardised system for relevant information technology. Each workplace evaluated will be optimised individually, and the equipment will be matched, triggering a thorough investigation. The computer system requires a hardware component that can be characterised through the system design, such as RAM configuration, storage capacity and tape drives. However, the number of ports, keyboard, format size, system functions and disk drive selection types depend on the manual design of the office.

Once the proper connections of the Central Processing Unit (CPU) and office functions have been established, a specific software and hardware collection is required to allow the technology to be used deliberately. Accordingly, the selection of the system function will identify the functional and utility software used in the design system, which will expedite the selection of the appropriate hardware system.

Five main areas are used to connect the office and the computer functions as listed in the following sections

1. Word processing
2. Information system of management
3. Modelling and forecasting
4. Telecommunications

These functions of combined operations and choice of hardware and software are significant tasks in the strategic planning of office automation.

4.3.2. Word processing

Word processing is one of the basic fundamental principles of office intelligence. Word documents conceptualise the ability to write text and protect it in the user's external storage (usually a magnetic disk) rather than copying it on paper. However, saved texts are easily editable and can be overwritten or modified multiple times. Typical text typing can be easily corrected within the required time consumption when done on paper and can be easily completed using keyboards. Consequently, photocopying may be done flawlessly and, at times, much above an experienced typewriter's. The most important features of word processing are the ability to easily save, edit and integrate two documents, access letters and make

other changes easily. Comprehensive knowledge extraction and filtering can also be done with complicated techniques, bridging the gap between the two to develop an automated: word analysis and data computing.

4.3.3. Information system of management

Database resource management systems are widely used to provide office automation based on file update systems and running office documents. Computer-based information solutions are programs that can install an interconnected set of documents. The significant features of an information management system are considered access to the possibility of data, the ability to create the documents with desired structure, day by day updating the information and application software for generating the summary of reports and tables, and the developments associated among the various tasks in database management. One of the most important components of computer-based information systems is using spatial links in intelligence collection. Massive amounts of data can be modified from time to time using these contacts by modifying a few important pieces of data.

Random access memory (RAM) is usually performed to function the database access management system and accelerated processing time designed inside the core. However, some information is available for mini-computers, which offer many advantages over core computers. (Fig. 4) shows the software requirements of the information management system. Some medium- and small-scale business industries also use the database management system.

Further, databases are handled by two modes for one set of files in the automated system. The first one is a traditional system operated by collections of relevant data. The various sections of information in a record consider the relevance of the information to one or more documents accessed within the file. Document control systems are more common than computer systems, although they can be particularly useful for searching and retrieving information from large volumes of inappropriate information.

The choice of the database selection system is based on different factors such as documentation, structural designs of database management, input and output functions used to reduce the availability of error in the data input, information editing tools and creation of applications by the users with a specific set of data taken in the considerations.

4.3.4. Modelling and forecasting

Modelling and forecasting are integral parts of computer applications during office automation. It should be noted that not all of these models can predict the future but may help the hiring manager to explore the consequences of choices based on basic expectations of whether a community will behave in the 21st century.

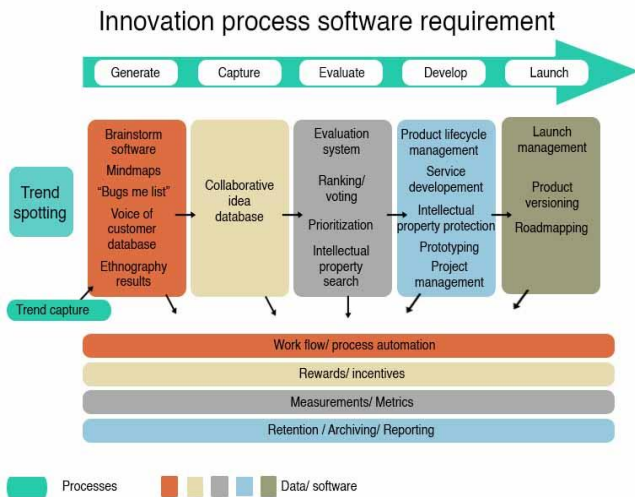


Fig. 4 Software requirements

Modelling evaluates the various scenarios to confess the determination to establish the acceptable effects of different managerial decisions. In most corporate forecasting models, the user determines the titles of the columns and rows and the relationships between the parameters. The effect of changing any element of the matrix on all other elements of the array can then be seen. These programs can be used to explore the effects of various external influences on many aspects of corporate strategies, such as borrowing costs, the economy, deflation and prices.

4.3.5. Telecommunications

Information about audio/video communication activities occupies 30% to 70% of manager time. An electronic device assists this communication system of each component. Mailing and video conferencing are one of the best examples of computer-based telecommunication. The term "emails" refers to various digital version communication systems that send direct data to encrypted email containers that hold the information until the recipient requests it. This type of mail system receives the information from one system to another using electronic devices for transferring and mailing. Within the workplace, the email service can be useful for organising details, distributing tasks, monitoring work progress, gaining specialised knowledge, and assisting in co-ordinating cognitive, administrative and production functions.

The store-and-forward method was used for the electrical mail system associated with one-by-two principal conformations. The primary method is "centralised conformations", which can use a greater number of terminals connected by the users with functions based on the time-sharing process. The terminals receive the message directly from the electronic system. All mail received in this arrangement and copies of departure messages are recorded and stored by a live and personalised user. Commonly manufactured technologies include integrating visual skills into email sites, office

software and voicemail messages. Efforts are also underway to create a common data structure that encourages more people to use encrypted email.

Teleconferencing is one of the text-based communication systems and, in conjunction with emails, attends to a particular area of communication required in office automation. All telecommunications sites rely on a centralised processor to organise, send and retrieve emails and texts. Communications are stored in documents associated with certain sessions and sent to the participants' database.

Table 1. Increase in productivity of Office automation

Variable	Responses	Percentage
Strongly agree	104	73.23%
Agree	36	25.34%
Strongly disagree	1	0.714%
Disagree	1	0.714%
Total	142	100%

According to Table, 36 participants (25.34%) and 104 respondents (74.07%) agree with the statement on this subject. It suggests that all respondents feel that office automation will improve productivity. According to the data in Table 3 above, 115 respondents (83.09%) strongly agreed, 25(17.06%) respondents (more agreed), and 2 respondents (0.0140%) disagreed. It demonstrates how a secretary can make the most of contemporary automation technologies.

Table 3 above reveals that 2 (1.4%) of the participants strongly believed that the organisation needs fewer secretaries as more departments are computerised. However, only 3 (2.78%) agreed, 119 (83.8%) strongly disagreed and 21 (14.78%) disagreed. It proves that office automation will not reduce the need for secretaries.

Table 2. Automation improved secretaries' job efficiency and effectiveness

Variable	Responses	Percentage
Strongly agree	115	83.09%
Agree	25	17.60%
Strongly disagree	-	-
Disagree	2	0.0140
Total	142	100%

Table 3. Office automation could result in a decrease in the need for secretaries

Variable	Responses	Percentage
Strongly agree	-	-
Agree	2	1.4%
Strongly disagree	119	83.8%
Disagree	21	14.78%
Total	142	100%

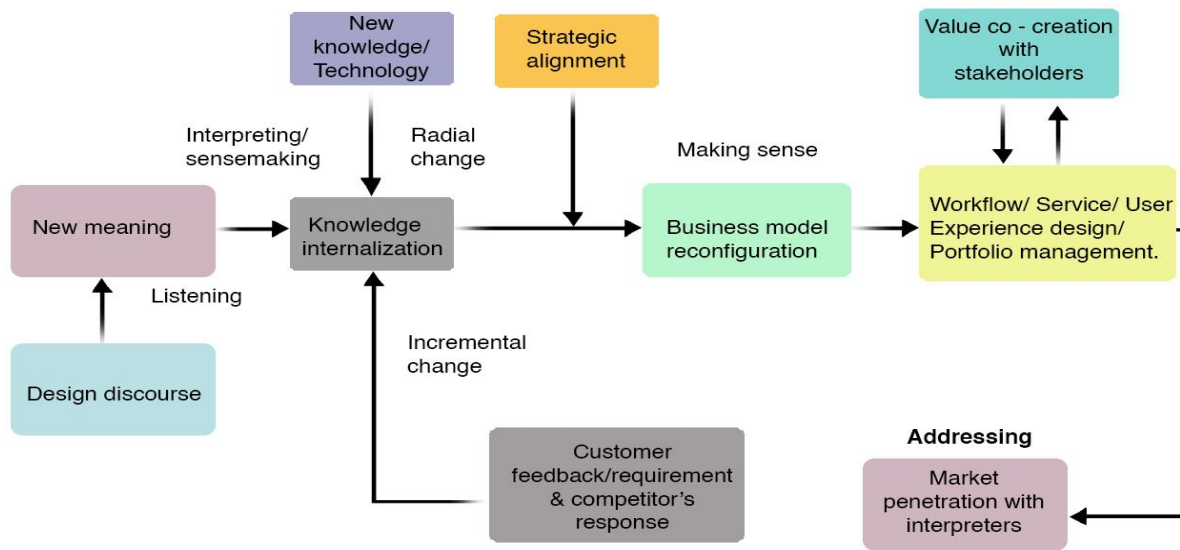


Fig. 5 Human aspects of the automation process

5. Human aspects of office automation

Effective organisation and coordination of research on unit functionality and creativity, in particular, allows the development of a systematic framework demonstrating that growth can be automated. Also, there is an important and obvious issue to consider. Distinguishes digital mechanisation in a previous scientific experiment Both innovation and efficiency of the innovation process are important. To minimise unintended people involvement, the aforementioned has its cage in petrochemical industries and is on the margins. However, in the second case, individual operators, organisational, environmental, and sociological elements are inextricably linked since creativity is more than just the creation of products; it is also the deployment of such artefacts in structure [18]

In the exchange of findings, individual participants assume dynamic responsibilities and influence each other in a group environment. It is well established that even these jobs can occasionally hinder the development of advances. Still, regarding technologies and artificial intelligence in the picture, these levels no longer pose such a threat. Advances in technology are more than enough to create a reality in companies in normal human behaviour [19]. Organisational change is driven by an environment integrated with innovation. This insight is supported by studies of technological advances and the acceleration of creativity, both of which have been studied for two decades [20]. Below (Fig. 5) shows the human aspects of the automation process under strategic planning.

5.1 Multi-objective impacts

The spread of technology affects our practical lives and accelerates our intellectual abilities' evolution. Moreover, the future scope of automation is affected by two characteristics as micro and macro levels. At the micro level, automation consists of technology that eliminates costs and activates extra energy, allowing organisational

members to develop innovative methods with fewer resources and greater opportunities for imagination and organisational innovation [21]. This intellectual advancement involves changes not only in human behaviour and skills but also in the advancement of robot technology and user connectivity [22-23].

At the macro level, automation, for example, disrupts organisational routines, posing problems in terms of organisational awareness and necessitating deliberate management innovation that departs from traditional administration methods and concepts [26]. Companies must leverage their macro-capabilities for corporate strategy and try a good approach to produce wealth and sustain comparative power (Means et al. 2000). Automated systems can be self-sufficient and isolated or engage with people as agents. As a result, the behaviour of many individuals must be considered when designing software systems and the computerised differential resolution that comes from certain interactions can make a big difference [24]. As a result, such mechanisation transforms organisational strategies and personal communication and communication. This trend is aided by increasing confidence in technology [25]

The impact of automation on organisational and administrative practice and planning varied. Economic, institutional and social decisions are all factors to consider. The Creating Breakthrough Solutions with a Long-Term Perspective Strategic innovations have the drive to promote and encourage innovation to maintain a leading position. Improved organisational and management styles encourage technological innovations' advancement and development. As a result, the effect of technology on the spread of innovation is not a beneficial or effective social revolution in itself, although it is intended to be profitable [27]. According to the literature on the rise of different stakeholders (RI), organisational transparency and deliberate involvement should be used to create a social

framework that ensures the effectiveness and validity of change [28]. Those innovation features do not seem to align with the concept of technological mechanisation [29-30]. S. However, they should generally be considered as the basic areas that create entry requirements based on the organisation's cultural and environmental context, considering the world's cultural structure.

In short, the development concept includes individual, organisational and environmental factors. Mechanisation improvements in personal and organisational practice are intertwined in the comprehensive micro and macro developments that affect those dynamics. Participatory policies ultimately govern movements.

5.2. Future scope and limitations

Innovation-Automation-strategy (IAS) cycle is one of the major important cycles in office automation foundations. This section explores the practical applications of IAS strategy and the future scope associated with those applications. A more detailed analysis of all related issues helps focus on different issues, introduce new research avenues, define future research, and understand its barriers. The practical applications are classified based on the following categories.

5.3. Artificial intelligence

One of the most interesting effects of the recommended application perspective seems to be the advancement of technologies and the development of artificial intelligence (AI) that may significantly contribute to accelerating the life cycle and improving the social automation of innovation (Fig. 6). Nowadays, these technologies are indirect and dependent, not much known [28]. As a result, some technological innovations can effectively improve a system's automation while simultaneously having difficulty operating the same function in different environments. Environmental and organisational instability may play a role in implementing the current cycle of IAS [28]. This insight expands the way for further inquiry into the key and linked topic of technologies that automate discoveries and facilitate the whole cycle of their integration. It is a challenge that applies to development and operational research and breakthrough and technological design [30].

Another important concern about the relationship between technological innovation and automation is the ability to measure and plan the multiplication of improvements throughout the process. Artificial learning approaches seem to be a promising path [31]. Often at the micro level, databases and pharmaceutical development, business affiliate systems, and computerised techniques that identify innovative research objectives in research have produced intriguing effects. As a result, a large number of such research can provide valuable quantitative conclusions for understanding the development of the campaign cycle (Reda et al. 2020).

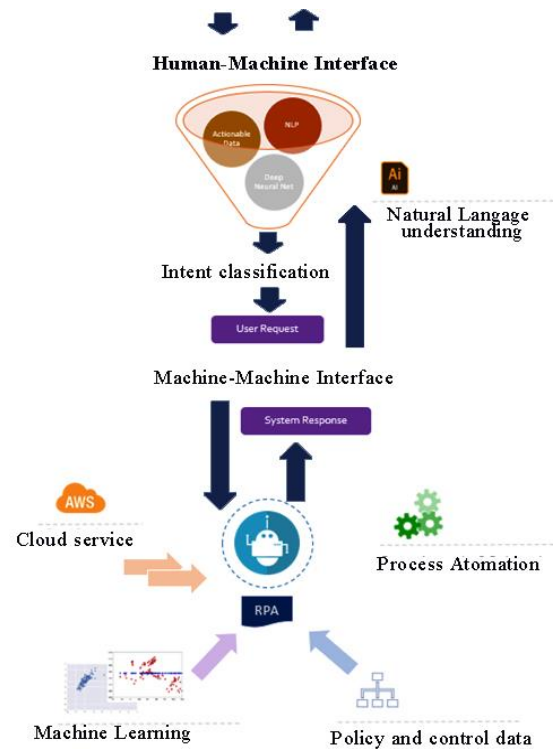


Fig. 6 Artificial Intelligence automation process

5.4. Strategic innovation

Knowledge of automation and AI, the development of organisational and strategic development, and the way businesses exploit automation are currently restricted due to the emphasis on technical and physical components [32]. As a result, researchers do not even understand the institutional options for adopting technology in a system that allows for intrusive management methods under IAS. On the continuous path, research on the psycho-cognitive component of innovation to help managers and leaders accelerate the automation cycle is still in the beginning phases [33]. But on the flip side, if companies adopt the IAS process to accelerate growth, they will also have attractive ways for humans to explore when companies are differentiating their approaches. Another possibility is to shift our decision-making to artificial intelligence (AI) generated from the information and prototype approach that integrates nutcase components.

Some other possibilities are "co-curricular" in which executives make choices based on their judgment and obligations. The reasonable one is a combination of the two. It creates rules and expectations for decision-making where functional models are played [34].

5.5. Technological innovation and conceptual transformations

The innovation-automation-strategy cycle has a set of significant implications for technical advancements. The development of new technologies has directly involved the innovation and automation cycle. From a modernisation standpoint, if all these sectors are economically and socially beneficial, the practice will objectively evaluate their potential and specialise in them.

Various interpretations of the paradigm of business change are available. Adopting automation as part of the IAS cycle changes the way you think about process innovations. The conventional notion of 'managing growth' has lost its meaning due to the increasing role of digitisation in the popular belief that technology is no longer a copy of the present. Moreover, the role of creativity faces a philosophical competition: the notion of originality provided by intelligent individuals or organisations is completely irrelevant in the context of automation. On the other hand, the extent of the change will be determined by further investigation. In any case, the recommended technique would make such theoretical and methodological changes possible.

6. Applications of office automation and uses

6.1. Computer Technology

The automated office system is key in providing text and digital conversion in computer-based applications. In particular, Microsoft, WPS, various editors for language rewriting and pattern creation for graphics analysis, and various productivity apps to reduce regular sessions and enhance workplace effectiveness. In particular, Microsoft, as well as various editors for language rewriting and pattern creation for graphics analysis, use various productivity apps to reduce regular sessions and enhance workplace effectiveness. Similarly, the Excel application is widely used to complete the table design, mathematical calculations, and processing the multimedia files into a fax, audio and video transformation business related to lives, producing it visible and innovative. Advances in new network technology, redesign of technologies, and the benefits of office performance save time. (Fig. 7) shows the various benefits of the automation process with practical amplifications.

6.2. Information system

The integrated information system is one of the advantages of office automation, as performed to transferring the database and intelligence resources to create the system of online communication satisfaction. By implementing computer literacy, the site integrates with any workplace system. It allows highly integrated customer service, Increases the efficiency and accuracy of the intrinsic flow of information, and the overall benefits of transparency are appreciated. This application system has been implemented in many enterprises; the traditional work practices highly restrain the performance of information systems in automation efficiency.



Fig. 7 Benefits of office automation system

The applications of automation systems in different fields of study have been shown in (Fig. 8).

6.3. Data centralisation

Data centralisation has many advantages for the office, due to which it streamlines the process in a short time and can perform multiple functions in a single system. Implementing incorporated information systems such as the acquisition of storage operations, eliminating unnecessary linkages in workplace company procedures and effectively addressing the greater performance of business administration.

6.4. Green Reflection

Nowadays, paperless methods are widely used to avoid the surplus of office materials. However, excellent data transferred by using recent technological enterprises in terms of energy and environmental protections, avoiding the surplus resources in the office, efficiently enhancing the sensible use of office resources, and playing a vital role in environmental protection.

6.5. Communication Technology

The functionality of the Microsoft installation process is that office programs, including digital data transfer technology, must be compatible with these types of environments. BWN 3.24F / D type telecommunications programs can provide world-class attention to workplace communications, including fax and EDL. This software sends fax documents through a series of office address books to receive the printed document directly.

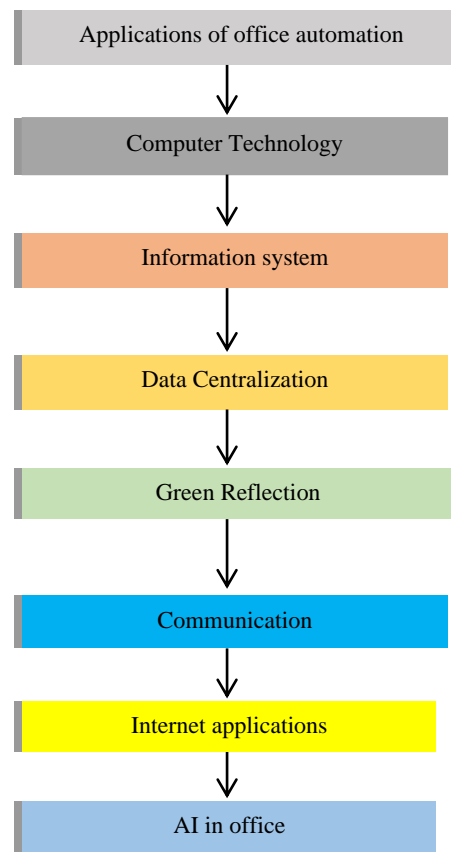


Fig. 8 Applications of office automation



Fig. 9 Service innovations

One of the key advantages of EDL in fax file transfer is that it can quickly send files in a short period through the remote operations of employees. Therefore, the expansion of the office automation application makes significant use of communications in the office environment.

6.6. Internet applications

Over the past ten years, with the significant use of wireless networks and computerised system supports, office networks have effectively transformed traditional office systems and increased space and time in the office environment. The latest trends in the office wireless network environment enable employees to share data collected in the network environment. The greater adoption of networking technologies in the workplace process not only improves the implementation of the code in workplace work transitions but also protects the workplace's productivity. Wireless communication networks can assist in the management, operations and many other professional functions, and this is rapidly becoming the trend of the office base in development.

6.7. Intelligence in the office

(Fig. 9) shows the service innovation cycle following practical implications. Computerised businesses help create the next generation of intelligent offices, making it easier for businesses to organise the knowledge they need and deliver assets and data products in various directions.

This kind of information setup has been providing all service plans. Service approaches, for instance, to solve customer expectations using intelligent office software have delivered a different way of available resources.

One more example is video technology for surveillance purposes, and conferencing is one of the

intelligent techniques and an upgradeable one; video demonstration of office operation is very easy and exploded.

The operating parameters, isolated relation and highly satisfied with multi-objective communication, which is a more intuitional way of office, create a program for outlaying communication. Video innovation is based on software knowledge systems. It has broken the shortcomings of conventional gatherings, changed the metadata network, provided an effective and easy form of conversation for consultations, and has become a widely accepted way of conversation in the contemporary office setting.

7. Conclusion

Automating key components such as computerised language and information processing facilities is a significant task. To promote corporate digitalisation and ensure that businesses run efficiently and effectively, the honesty of people who re-train technologies must be prioritised. It is the office's upcoming trend to improve service innovations. Communication technologies offer excellent opportunities in the office system, in technology and scientific knowledge in the automated processes of intelligent processes, the need for key computer software applications, the application of software technologies to enhance workplace performance, the rapid advancement of advanced information structure applications and the need for information. Application software cloud computing capabilities are already fully reflected.

Automation is an important aspect of modern management that is being replaced by current computer technology with better technical, organisational and cultural implications. To come up with a solution for such an event, one has to deal with the globally unrecognised agreement on the subject. Problems are spreading in many industries referred to as "management science knowledge", and these specialities should be considered before making well-established management recommendations. The challenges described as "business and management skills" are growing across different organisations, and these specialisations must first be addressed by developing well-established professional learning. The implemented results showed a significant increase in consumer engagement, employee satisfaction and product order fulfilment, as well as eliminating any human mistakes that may have occurred during the execution of the customer expectations. Furthermore, using these innovations will allow the adoption of new programs such as artificial intelligence, cloud computing and blockchain to serve customers.

Table 4. Comparison of increase in productivity

Business Partner	Purpose	Application	AI Method	Increase of productivity	Reference
Manufacturing	Order Intake in the office	Order picking system	Expert system	85.6%	[40]
	Order Intake in the office	Chatbots and intelligent assistants for operational procurement	Natural Language	75.6%	[41]
Customer	Interfaces	Customer requirements management	Machine Learning	72.56%	[42]
		Chatbots and intelligent assistants for customer services	Natural Language Processing	-	[43]

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