Investigating the Factors Influencing Career Advancement and Salary

Optimization Strategies for HR Professionals

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DBA
(Doctor of Business Administration)
Human Resources

BY

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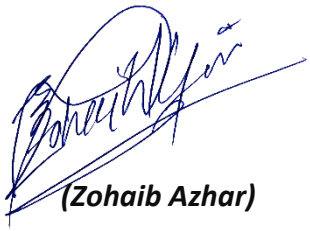
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DECLARATION

I **Zohaib Azhar**, a student of **DBA, Doctor of Business Administration** European International University hereby, declare that the project work titled "Investigating the Factors Influencing Career Advancement and Salary Optimization Strategies for HR Professionals", submitted to the European International University in partial fulfillment of the requirement for the award of the degree of DBA, is a record of bonafide research carried out by me.



(Zohaib Azhar)

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First of all, I express my deep sense of gratitude to the Supreme Almighty for inspiring me to embark on this study and guiding me throughout its successful completion.

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Zohaib Azhar

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CHAPTER 1

PREFACE

1.1 INTRODUCTION

Investigating the Factors Influencing Career Advancement and Salary Optimization Strategies for HR Professionals

Achieving career advancement and optimizing salary growth are pivotal aspirations for HR professionals seeking to excel in their field. Yet, unraveling the intricate factors that shape these outcomes requires a profound understanding of the multifaceted dynamics at play. In this comprehensive exploration, we delve into the world of HR professionals, meticulously examining the key determinants that propel their careers forward and unlock the doors to financial prosperity.

Similar to a grand tapestry woven from various threads, the factors influencing career advancement and salary optimization strategies for HR professionals interweave both internal and external elements. Within the realm of human resources, the pursuit of success necessitates a delicate balance between personal growth, strategic acumen, and a profound ability to navigate the intricacies of the ever-evolving corporate landscape.

Uncovering the optimal path to career advancement requires a nuanced comprehension of the core pillars that underpin professional growth within the HR domain. These pillars encompass a fusion of skill sets, industry knowledge, and an astute awareness of emerging trends, enabling HR professionals to traverse the trajectory towards success with unwavering determination and purpose.

Simultaneously, the art of salary optimization demands a shrewd understanding of the economic intricacies that underlie the compensation landscape. HR professionals embarking on this transformative journey must skilfully navigate the realms of negotiation, market dynamics, and industry benchmarks to secure a remuneration package that reflects their true value. By harnessing these factors with finesse and foresight, HR professionals can elevate their earning potential and lay the foundation for long-term financial prosperity.

However, the pursuit of career advancement and salary optimization strategies cannot exist in isolation. Rather, it is the harmonious integration of the three fundamental components—individual prowess, strategic frameworks, and organizational support—that unlocks the true potential of HR professionals. In this symphony of success, the interplay between personal

development, the alignment of HR strategies with broader business objectives, and the fostering of an enabling organizational culture create a virtuous cycle, propelling HR professionals towards unprecedented heights.

Within this intricate tapestry, HR professionals must navigate a dynamic landscape, keeping a keen eye on emerging trends, technological advancements, and shifting paradigms. The world-class HR professional of tomorrow embraces the ever-changing nature of their field, leveraging continuous learning and adaptability to stay ahead of the curve and transcend conventional boundaries.

In this investigation into the factors influencing career advancement and salary optimization strategies for HR professionals, we embark on a journey of exploration, analysis, and strategic insight. By unravelling the multifaceted tapestry that forms the bedrock of HR success, we equip ambitious professionals with the knowledge, tools, and inspiration needed to forge an

extraordinary career trajectory and unlock boundless possibilities for both personal and professional fulfillment.

Structure: The Right Roles in the Right Places

No matter how much talent you have in the organization, if the right people aren't in the right roles or don't have the authority to execute their roles properly, they won't be able to fulfil their potential. This is where structure comes in.

Official and Unofficial Hierarchies

The structure of an organization is defined by both official and unofficial hierarchies. Official hierarchies are the relationships between executives, senior leaders, line managers, team leaders, and every individual in the organization. These relationships are critical for conveying the organizational vision, communicating the strategy for achieving it, and providing performance feedback.

Unofficial hierarchies exist in every organization, and the most successful ones recognize this and foster these relationships in a positive way. These are the day-to-day working relationships that allow individuals to learn from others' expertise, make quick decisions, and operate productively. Because these unofficial hierarchies can play a significant role in performance, it's important to empower people to build these relationships.

Goal management is about more than just the annual assigning of goals and reviewing of employee performance. It's about getting every employee to use and develop their talents, skills and experience to help the organization meet its overarching goals.

While effective goal management is especially critical in larger organizations, it can also have a dramatic impact in smaller ones.

Goal alignment plays a key role in effective goal management. Every employee's role and every employee goal should be tied to the organization's overall strategy, not just to their manager's success. That way you can rationalize conflicting priorities, based on a higher level common goal. Without alignment, everyone is managing their own personal goals in a discrete way. While an individual may be successful in meeting all their personal goals, their

Work may not in fact contribute to the success of the organization overall; it might even work against it. Goal alignment helps to ensure that everyone's individual contributions move the organization forward in the right direction.

For goal management to be successful, it needs to be ingrained in your corporate culture so it keeps everyone's focus on the success of the overall organization, and helps everyone to see themselves as part of a larger team. With systemic goal management, the whole team succeeds or fails; no individual division or department can succeed at the expense of another.

Effective goal management is ongoing. It requires a regular continuous dialogue between managers and employees that includes: feedback and coaching, prioritizing, and employee development and career planning. This ongoing dialogue helps to ensure that individual and organizational performance stay on track, and allows everyone to adjust their goals as needed to keep pace with evolving business and market requirements.

Employees know that their managers are one of the keys to their success. As a result, they tend to work on the things their managers care about. So if you want your employees to feel accountable for achieving their goals and the organization's goals, you need to communicate the importance of goals. Your leaders and managers need to regularly check on their employees' progress on goals. They also need to regularly communicate goal status, up and down the reporting chain. These regular checks and communication demonstrate the importance and value of goals and keep everyone aligned and accountable for their performance.

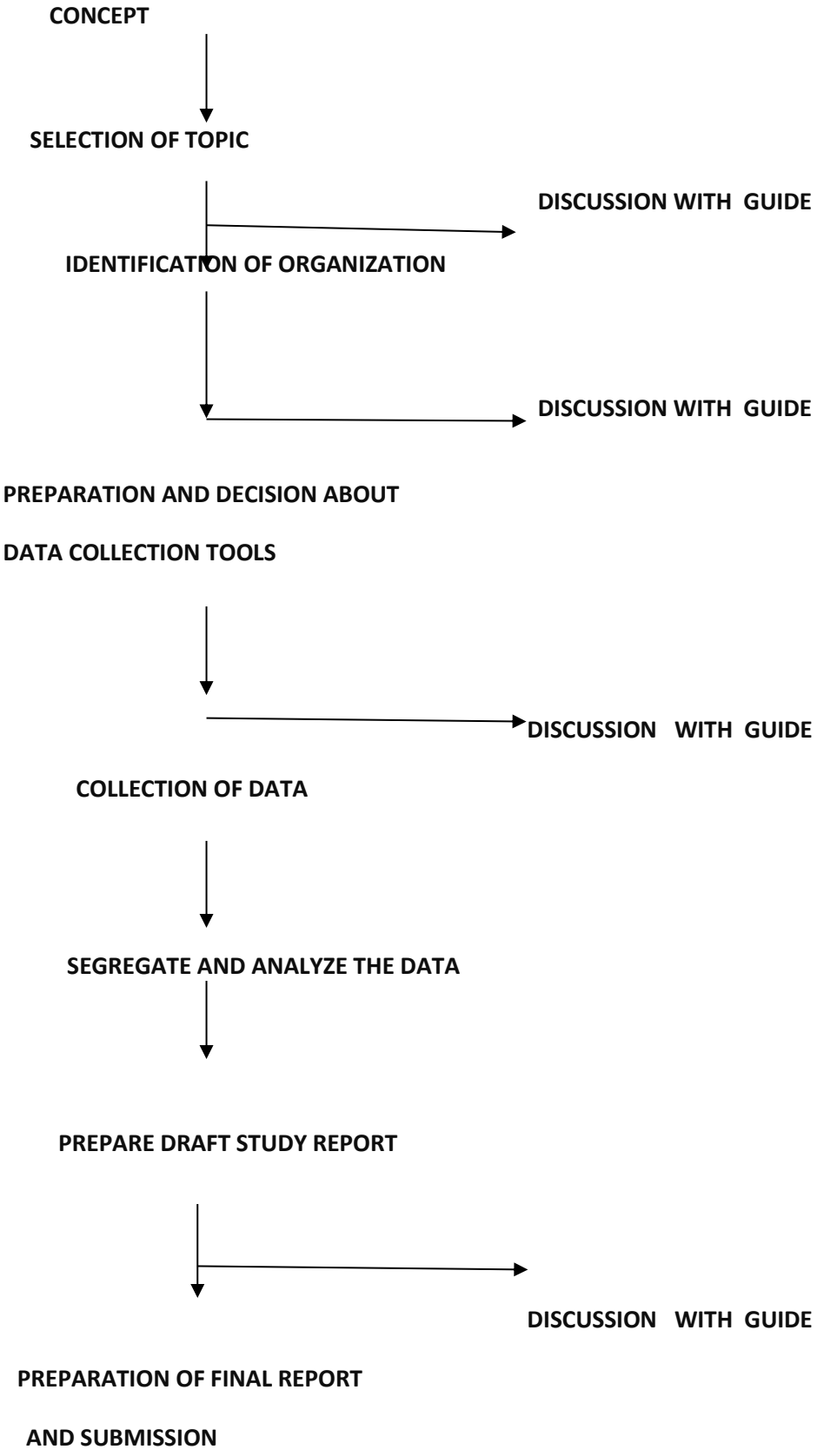
1.2 OBJECTIVE OF THE RESEARCH

- Identify the key competencies and skill sets required for career advancement in the HR field.
- Examine the impact of industry trends and technological advancements on HR professionals' career progression.
- Analyse salary optimization strategies for HR professionals and factors influencing compensation levels.
- Investigate the role of personal development and continuous learning in HR career advancement.
- Examine the importance of organizational support and culture in fostering HR professionals' career progression.

1.3 SCOPE OF THE STUDY

- The scope of the study is start with a pre-feasibility study.
- Planning of the study
- Preparation of data collection formats and documents
- Collection and analysis of data
- Preparation of study report

1.4 RESEARCH DESIGN



1.5 RESEARCH METHODOLOGY

The collection of data for the purpose of studying is based on two types of data . They are :-

1. Primary.
2. Secondary.

Primary Data

Primary Data is a data collected by the investigator himself for the purpose of a specific inquiry or study. Mainly data is obtained through Direct Observation and Direct interview methods.

- Observation: - mainly done by observing the general environment and day-to-day operation of the company.
- Interview: - Conducted face-to-face interviews with managers and company employees.

Secondary Data

Secondary Data is obtained from sources like

- Company Records
- Previous reports
- Websites
- Magazines etc

In today's highly competitive professional landscape, the factors influencing career advancement and salary optimization strategies for HR professionals play a pivotal role in shaping individual success and organizational performance. As the HR function becomes increasingly critical for organizations to achieve their strategic objectives, it is essential to understand the underlying dynamics that drive career progression and salary growth in this field.

The rationale for this research study stems from the recognition that HR professionals are key drivers of organizational success, acting as catalysts for employee engagement, talent management, and strategic decision-making. By investigating the factors that influence career advancement and salary optimization strategies specifically tailored to HR professionals, this research aims to provide valuable insights and guidance for individuals and organizations alike.

In today's dynamic and evolving workplace, organizations need to attract, retain, and develop top HR talent to gain a competitive edge. By exploring the key determinants that contribute to career advancement in HR, such as the required competencies, skill sets, and knowledge areas, this research study seeks to provide a comprehensive understanding of the foundational pillars that HR professionals need to cultivate and enhance.

Moreover, as salary optimization remains a significant aspect of career progression, investigating the strategies and factors influencing compensation levels in the HR field becomes crucial. By delving into the intricacies of negotiation tactics, market dynamics, industry benchmarks, and other relevant variables, this research study aims to shed light on effective salary optimization strategies for HR professionals, ensuring they receive fair and equitable remuneration that aligns with their value and contributions.

Additionally, the study recognizes the interconnectedness of individual growth, strategic frameworks, and organizational support in driving HR professionals' career advancement. By

examining the role of personal development, continuous learning, and the fostering of an enabling organizational culture, this research aims to highlight the importance of nurturing all three components simultaneously to create a conducive environment for HR professionals to thrive and succeed.

Ultimately, the findings of this research study will offer valuable insights and actionable recommendations for HR professionals seeking to optimize their career paths and salary growth. By understanding the factors that influence career advancement and salary optimization strategies tailored specifically to the HR field, individuals can make informed decisions and develop targeted approaches to elevate their professional trajectories. Furthermore, organizations can gain a deeper understanding of how to attract, retain, and develop top HR talent, leading to enhanced organizational performance, productivity, and long-term success.

1.6 LIMITATION OF THE STUDY

- Time limitation was there for a vast study
- Some assumption were taken during data analysis
- In some area detailed data is not available.

CHAPTER 2

GLOBAL ORGANIZATION

2.1 ABOUT GLOBAL ORGANIZATIONS

Global organization, institution drawing membership from at least three states, having activities in several states, and whose members are held together by a formal agreement. The Union of International Associations, a coordinating body, differentiates between the more than 250 international governmental organizations (IGOs), which have been established by intergovernmental agreements and whose members are states, and the approximately 6,000 nongovernmental organizations (NGOs), whose members are associations or individuals.

IGOs range in size from three members to more than 185 (e.g., the United Nations [UN]), and their geographic representation varies from one world region (e.g., the Organization of American States) to all regions (e.g., the International Monetary Fund). Whereas some IGOs are designed to achieve a single purpose (e.g., the World Intellectual Property Organization), others have been developed for multiple tasks (e.g., the North Atlantic Treaty Organization).

Their organizational structures can be simple or highly complex depending on their size and tasks.

Although nascent international organizations were formed by Greek city-states and were envisioned by European writers such as Pierre Dubois (c. 1250–c. 1320) and Émeric Crucé (c. 1590–1648), they did not appear in their contemporary form until the 19th century. Following the French Revolution and the Napoleonic wars of the late 18th and early 19th centuries, leaders of the major European powers met periodically, in a system of consultation known as the Concert of Europe, to attempt to preserve the status quo and to protect their governments from internal rebellion. Later in the 19th century, various international organizations, such as the International Telegraph Union (1865; now the International Telecommunication Union), were established to provide specialized services and to perform specific tasks. In 1899 and 1907 European and non-European states met to develop rules to

regulate armaments and the conduct of war. These conferences produced the Hague Conventions, which included agreements on the peaceful settlement of war, the treatment of prisoners of war, and the rights of neutral states. These various meetings and agreements served as precursors to the international organizations of the 20th century, such as the League of Nations and the United Nations (UN). Spurred by the political and economic interdependencies and advances in communication and transportation that developed after World War II, the UN became the centrepiece of a network of international organizations. International organizations serve many diverse functions, including collecting information and monitoring trends (e.g., the World Meteorological Organization), delivering services and aid (e.g., the World Health Organization), and providing forums for bargaining (e.g., the European Union) and settling disputes (e.g., the World Trade Organization). By providing political institutions through which states can work together to achieve common objectives,

international organizations can help to foster cooperative behaviour. IGOs also serve useful purposes for individual states, which often use them as instruments of foreign policy to legitimate their actions and to constrain the behaviour of other states.

Although the daily operations of most international organizations are managed by specialized international bureaucracies, ultimate authority rests with state members. IGOs often work closely with other organizations, including NGOs (e.g., Greenpeace and Amnesty International), which serve many of the same functions as their IGO counterparts and are particularly useful for mobilizing public support, monitoring the effectiveness of international aid, and providing information and expertise. Although many of the thousands of NGOs direct their activities toward less developed countries in Africa and Asia, some of which have authoritarian forms of government, most of these groups are based in developed states with pluralist political systems. Only a small fraction of NGOs are international in scope, though they have played an increasingly important role in international relations.

2.2 TYPE OF GLOBAL ORGANIZATIONS

A growing number of organizations that operate within only one country are recognizing that they must change and develop a more international perspective. Organizations may pass through three stages as they broaden out into the world,

IMPORTING AND EXPORTING

The first phase of international interaction consists of importing and exporting. Here, an organization begins selling and buying goods and services with organizations in other countries. Most of the international contacts are made by the sales and marketing staff and a limited number of other executives who negotiate contracts. Generally, HR activities are not affected except for travel policies for those going abroad.

MULTINATIONAL ENTERPRISES

As firms develop and expand, they identify opportunities to begin operating in other countries. A multinational enterprise (MNE) is one in which organizational units are located in foreign countries. Typically these units provide goods and services for the geographic areas surrounding the countries where operations exist. Key management positions in the foreign operations are filled with employees from the home country of the corporation. As the MNE expands, it hires workers from the countries in which it has operations.HR practices for employees sent from corporate headquarters must be developed so that these employees and their dependents may continue their economic lifestyles while stationed outside the home country.

Ways to link these individuals to the parent company are also critical, especially if the international job assignment is two to three years long. There are likely to be laws and regulations differing from those in the home country that must be considered. As a result, the HR professionals in the parent organization must become knowledgeable about each country in which the MNE operates and know how staffing, training, compensation, health and safety, and labor relations must be adapted.

GLOBAL ORGANIZATION

The MNE can be thought of as an international firm, in that it operates in various countries but each foreign business unit is operated separately. In contrast, a global organization has corporate units in a number of countries that are integrated to operate as one organization worldwide. An MNE may evolve into a global organization as operations in various countries become more integrated.

Another example of making the transition from MNE to global organization involves Ford Motor Co. in the early 1990s. Ford started shifting from having a separate, relatively autonomous unit on each continent to operating as a global firm. One facet of Ford's approach illustrates the shift. Previously, Ford had its major design centers in the United States, and centers elsewhere adapted U.S.- designed vehicles to market needs in various countries. If separate Ford vehicles were developed, they often differed in model name and style. Under the global approach, Ford is merging design facilities and people from all over the world. In centers located in several countries, designers, engineers, and production specialists will work in teams to develop cars. Ford plans to develop a common "platform" and model for what it hopes will become a "world car" that can be produced and sold throughout the world. It will differ in different countries only in having the steering wheel and the instrumentation on the right for such countries as Great Britain and Australia.

HR management in truly global organizations moves people, especially key managers and professionals, throughout the world. Individuals who speak several languages fluently are highly valued, and they will move among divisions and countries as they assume more responsibilities and experience career growth. As much as possible, international HR management must be viewed strategically in these organizations. Global HR policies and activities are developed, but decentralization of decision making to subsidiary units and operations in other countries is necessary in order for country-specific adjustments to be made.

2.3 FUNCTIONS OF INTERNATIONAL ORGANISATIONS

International organizations function in the following ways:

1. Articulation and aggregation
2. Norms creation
3. Recruitment
4. Socialisation
5. Rule-making
6. Rule-application
7. Rule-adjudication
8. Information
9. Operations

1. **Articulation and Aggregation**

International organizations can function for the aggregation and articulation of the national interests of its members into the international system. Thus, they bring the interested states into the same framework to articulate their interests into the world society. Just like interests groups in the national systems articulate and aggregate their common interests by forming institutions, associations, and interest groups such as unions for better wages and working conditions, or green peace for a cleaner environment, states do the same by articulating and aggregating their common interests onto the international political system through the international organisations. To achieve this, they form coalition, co-operation, alliance. For example, OPEC is a organisation for the aggregation and articulation of the oil exporting countries, to raise the oil prices, or to increase their power by using oil as a weapon. UNCTAD is sub-organ of the UN to articulate the interests of the developing countries, and to augment their voice in the system. On the other hand, there are some INGOs for the same objective, such as the World Zionist Organisation, the International Chamber of Shipping, etc.

2. **Norms**

They can function as the makers of norms and law for the operation of international relations. In other words, they make law for the states to follow. Their activities are grouped into three groups:

On political issues: They produced several documents or treaties in improving human rights, for example 1948 UN Universal Declaration of Human Rights, 1982 Law of Sea,

On economic issues, they make arrangements to improve trade and economic relations among the nations. For example, GATT developed important norms for free international trade and commerce by lowering the customs tariffs and bringing some standards for the running of world trade.

On security issues, the UN and other regional organizations developed some norms in the filed of disarmament, nuclear non-proliferation, banning the use of force, de-legitimisation of colonialization, etc.

3. **Recruitment**

They function as the forces to recruit new actors into the international system. Especially the U encouraged the colonial powers to free their colonies, and the colonies to join into the international system by joining the organisation. So in the 1950-60s, many new states became members to the UN. As a result, the number of the UN members sharply increased from to 50s to the 100s.

4. **Socialisation**

They adapt the states into the international system by socialising them. Just like in the national system there are institutions such as military, schools, foundations to socialise the citizens into the national system, international organisations educate and train them in such a way. It takes place at two levels:

- By direct means, any organisations provide educational, social, psyhcological environment to the citizens of the member countries. Thus they create a "community sprit" In that some INGOs play a great role by affecting the people in different ways.
- By formal and diplomatic ways, state representatives or diplomats can be "socialised" to act in certain ways that is acceptable to the rest of the "international community". They learn new thinking and alternative ways of living. As a result they are persuaded in a way in line with the general norms of international system.

5. Rule-Making

They make rules for the arrangements of relations between its members. Rules can take form of a decision, a resolution, a recommendation, a conference declaration, or a treaty or agreement. For example, the EU makes rule for its member states, civil groups or citizens to follow. The UN takes resolutions or recommendations on different issues. But in most cases, these rule should be taken by the consensus of the members to be effective.

6. Rule-Application

Rule – application means putting the rule into effect In most cases, the rules are expected to be put into effect by the member governments because the international organisations may not have the resource or means to put them into effect. But for the rules to be applied widely, they should be accepted by the members states as useful for their interests. Otherwise, they can remain as papers.

For example, the UN Security Council imposed sanctions to several aggressors, but only a few of them were put into practice, such against Iraq, but not against Israel.

7. Rule - Adjudication

Rule – adjudication means the legal solution of the problems by the judicial courts. In nation-states, the rule-adjudication is carried out by the judiciary- law courts, arbitration panels, tribunals, an so on. In international level, this is done by some institutions such as International Court of Justice inn the case of the UN, and the Permanent Court of International Justice in the case of the League of Nations, or the European Court of Justice in the Case of the European Union.

But the decisions of these courts are boundary only for those who accept its authority.

8. Information

They collect, keep, and disseminate information to the states which need them. For example, the WHO, WMO, FAO, and many other functional international organisations have wide array of information in their own special field. And states uses their own interests.

9. Operations

Their operations vary depending on the field of the international organisation. Thus some deal with providing credit (IMF-World Bank), some with helping refugees (UNHCR), some with health problems (WHO) and so on.

CHAPTER 3

LITERATURE REVIEW

Introduction:

The field of Human Resources (HR) plays a vital role in organizations, driving employee engagement, talent management, and strategic decision-making. As HR professionals seek to advance their careers and optimize their salaries, it is crucial to explore the factors that contribute to their success. This literature review aims to provide a comprehensive analysis of existing research and scholarly discourse on the factors influencing career advancement and salary optimization strategies for HR professionals.

Factors Affecting Career Advancement:

Several factors have been identified as influential in shaping the career advancement of HR professionals. Firstly, the acquisition and cultivation of key competencies and skill sets have been highlighted as crucial determinants. Studies have emphasized the importance of HR professionals developing expertise in areas such as strategic HR management, employee relations, talent acquisition, and data analytics. By mastering these competencies, HR professionals can position themselves for career growth opportunities within their organizations.

Furthermore, personal development and continuous learning have emerged as significant factors in HR career advancement. Research suggests that HR professionals who engage in lifelong learning, pursue professional certifications, and actively seek opportunities for growth are more likely to advance in their careers. This underscores the importance of a growth mindset and a commitment to ongoing skill enhancement for HR professionals aiming to reach higher positions.

In addition, the role of networking and building professional relationships has been recognized as instrumental in career advancement. Building connections within the HR community, participating in industry events, and seeking mentorship opportunities can provide HR professionals with valuable insights, guidance, and potential career opportunities. Studies emphasize the significance of cultivating a strong professional network to expand career prospects and access new avenues for advancement.

Factors Influencing Salary Optimization Strategies:

Optimizing salary and compensation is a critical aspect of career advancement for HR professionals. Several factors have been identified as influencing salary optimization strategies within the HR field. Firstly, negotiation skills play a pivotal role in determining salary outcomes. Research highlights the importance of HR professionals developing effective negotiation techniques to advocate for fair and competitive compensation packages. Understanding market dynamics, industry benchmarks, and the value of their expertise enables HR professionals to effectively negotiate and optimize their salaries.

Organizational factors also influence salary optimization strategies for HR professionals. The presence of transparent and merit-based compensation systems, supported by well-defined job evaluation processes, fosters equitable and optimized salary structures. Organizational cultures that value employee contributions and provide avenues for professional growth and recognition tend to have more favorable salary optimization strategies for HR professionals.

Furthermore, market trends and industry-specific factors impact salary optimization strategies. HR professionals who stay abreast of industry trends, technological advancements, and evolving workforce dynamics can leverage this knowledge to position themselves for higher salary opportunities. Understanding market demands and aligning one's skill sets and expertise with emerging HR needs can lead to increased salary potential

Knowing how other operational effectiveness affects LOB

ABOUT SIX SIGMA

SIX SIGMA METHODOLOGY AND ITS RELEVANCE TO HR PROFESSIONALS IN GLOBAL ORGANIZATIONS

Six Sigma is a renowned methodology for process improvement that aims to enhance the quality of outputs by identifying and eliminating defects, reducing variability, and achieving measurable financial returns. Originally introduced by Bill Smith at Motorola in 1986 and later embraced by Jack Welch at General Electric, Six Sigma has become a cornerstone of business strategies worldwide.

Within the context of global organizations, Six Sigma holds valuable implications for HR professionals, particularly in the realm of career advancement and salary optimization strategies. By applying the principles of Six Sigma, HR professionals can effectively analyze and improve the various HR processes, leading to enhanced employee performance, increased job satisfaction, and ultimately, a more streamlined and efficient organization.

The fundamental essence of Six Sigma lies in its focus on stability, predictability, and data-driven decision-making. HR professionals can utilize Six Sigma tools and methodologies to measure and analyze key performance indicators, identify areas of improvement, and develop targeted strategies to optimize career advancement and salary structures for employees across different regions and functions within a global organization.

Moreover, Six Sigma encourages a culture of continuous improvement and commitment to quality throughout the organization. HR professionals can champion the adoption of Six Sigma principles among employees and top-level management, fostering a shared understanding of the importance of stable and predictable HR processes. This commitment to quality

improvement can contribute to the overall success of the organization by attracting and retaining top talent, increasing customer satisfaction, and ultimately improving profitability.

Incorporating Six Sigma into HR practices in a global organization involves aligning HR processes with the core principles of the methodology. This includes setting specific value targets, such as reducing process cycle time, enhancing customer satisfaction, minimizing costs, and increasing overall profitability. HR professionals can use statistical and empirical methods to measure performance, identify areas of improvement, and implement data-driven solutions to optimize career advancement opportunities and salary structures for HR professionals and employees across the organization.

Furthermore, the combination of Six Sigma and lean management methodologies can create a powerful framework known as Lean Six Sigma. This integrated approach addresses process flow, waste reduction, defect elimination, and variation reduction, all of which are crucial elements in enhancing HR practices and driving organizational excellence.

By leveraging Six Sigma and Lean Six Sigma principles, HR professionals in global organizations can gain a competitive edge by creating a culture of continuous improvement, data-driven decision-making, and process optimization. These methodologies empower HR professionals to identify and eliminate inefficiencies, maximize career growth opportunities, and optimize salary structures to attract, retain, and motivate top talent in the highly competitive global marketplace.

In summary, the adoption of Six Sigma methodologies by HR professionals in global organizations provides a systematic and structured approach to improve career advancement and salary optimization strategies. By embracing this approach, HR professionals can enhance the overall effectiveness and efficiency of HR processes, leading to a more engaged workforce, improved organizational performance, and a competitive advantage in the global business landscape.

Implementation roles

One key innovation of Six Sigma involves the absolute "professionalizing" of quality management functions. Prior to Six Sigma, quality management in practice was largely relegated to the production floor and to statisticians in a separate quality department. Formal Six Sigma programs adopt a kind of elite ranking terminology (similar to some martial arts systems, like judo) to define a hierarchy (and special career path) that includes all business functions and levels.

Six Sigma identifies several key roles for its successful implementation.

- *Executive Leadership* includes the CEO and other members of top management. They are responsible for setting up a vision for Six Sigma implementation. They also empower the other role holders with the freedom and resources to explore new ideas for breakthrough improvements by transcending departmental barriers and overcoming inherent resistance to change.

- *Champions* take responsibility for Six Sigma implementation across the organization in an integrated manner. The Executive Leadership draws them from upper management. Champions also act as mentors to Black Belts.
- *Master Black Belts*, identified by Champions, act as in-house coaches on Six Sigma. They devote 100% of their time to Six Sigma. They assist Champions and guide Black Belts and Green Belts. Apart from statistical tasks, they spend their time on ensuring consistent application of Six Sigma across various functions and departments.
- *Black Belts* operate under Master Black Belts to apply Six Sigma methodology to specific projects. They also devote 100% of their time to Six Sigma. They primarily focus on Six Sigma project execution and special leadership with special tasks, whereas Champions and Master Black Belts focus on identifying projects/functions for Six Sigma.
- *Green Belts* are the employees who take up Six Sigma implementation along with their other job responsibilities, operating under the guidance of Black Belts.

According to proponents of the system, special training is needed for all of these practitioners to ensure that they follow the methodology and use the data-driven approach correctly.

Some organizations use additional belt colours, such as *Yellow Belts*, for employees that have basic training in Six Sigma tools and generally participate in projects and "White belts" for those locally trained in the concepts but do not participate in the project team. "Orange belts" are also mentioned to be used for special cases

In Length with the Role :

Implementation Job Roles for Investigating the Factors Influencing Career Advancement and Salary Optimization Strategies for HR Professionals:

Research Project Manager:

The research project manager will oversee the implementation of the study, ensuring that all aspects of the research process are effectively coordinated. They will be responsible for developing a comprehensive research plan, setting timelines and milestones, and allocating resources accordingly. The project manager will provide leadership and guidance to the research team, ensuring that the study stays on track and meets its objectives within the given timeframe.

Data Collection Specialist:

The data collection specialist will be responsible for designing and executing the data collection process. They will develop survey questionnaires or interview protocols tailored to gather information on the factors influencing career advancement and salary optimization strategies for HR professionals. The data collection specialist will administer surveys, conduct interviews, and organize focus groups to collect primary data. They will also ensure the ethical handling and storage of data and maintain participant confidentiality throughout the process.

Data Analyst:

The data analyst will play a crucial role in analyzing the collected data. They will employ statistical techniques and data visualization methods to identify patterns, trends, and relationships between the variables related to career advancement and salary optimization strategies for HR professionals. The data analyst will interpret the findings and generate meaningful insights that contribute to the overall understanding of the research topic. Their analysis will form the basis for drawing conclusions and making recommendations.

Literature Review Specialist:

The literature review specialist will conduct a comprehensive review of existing academic literature and industry reports related to the factors influencing career advancement and salary optimization strategies for HR professionals. They will search and analyze relevant articles, books, and research papers to identify key themes, theories, and findings in the field. The literature review specialist will synthesize the information and provide a critical overview of the current knowledge, highlighting gaps and areas that need further exploration.

HR Practitioner Engagement Coordinator:

The HR practitioner engagement coordinator will be responsible for engaging HR professionals as participants in the study. They will develop strategies to reach out to HR professionals through various channels, such as professional networks, HR associations, and industry events. The coordinator will communicate the importance and benefits of participating in the research, addressing any concerns or questions from potential participants. Building strong relationships

with HR practitioners will be essential to ensure their active involvement and contribution to the study.

Thesis Advisor/Supervisor:

The thesis advisor or supervisor will provide guidance and expertise throughout the implementation of the research study. They will offer valuable insights into research design, methodology, and data analysis. The advisor will provide feedback on the research progress, review and validate the findings, and ensure the overall quality of the study. Their expertise and guidance will contribute to the rigor and academic integrity of the research.

These implementation job roles will collectively contribute to the successful execution of the research study on investigating the factors influencing career advancement and salary optimization strategies for HR professionals. The collaboration and expertise of these roles will lead to meaningful findings and actionable recommendations that can benefit both HR professionals and organizations in optimizing career growth and compensation strategies in the HR field.

SIX SIGMA APPLICATIONS IN ORDER OF ORGANIZATIONAL ALIGNMENT

Six Sigma mostly finds application in large organizations. An important factor in the spread of Six Sigma was GE's 1998 announcement of $350 million in savings thanks to Six Sigma, a figure that later grew to more than $1 billion. According to industry consultants like Thomas Pyzdek and John Kullmann, companies with fewer than 500 employees are less suited to Six Sigma implementation or need to adapt the standard approach to make it work for them. Six Sigma however contains a large number of tools and techniques that work well in small to mid-size organizations. The fact that an organization is not big enough to be able to afford black belts does not diminish its abilities to make improvements using this set of tools and techniques. The infrastructure described as necessary to support Six Sigma is a result of the size of the organization rather than a requirement of Six Sigma itself.

Although the scope of Six Sigma differs depending on where it is implemented, it can successfully deliver its benefits to different applications.

Once upon a time, in a global organization striving for excellence, the principles of Six Sigma were embraced as a catalyst for process improvement. The organization recognized that Six

Sigma, with its proven track record of delivering substantial savings and driving operational efficiency, could be a game-changer.

At the helm of this organization, HR professionals played a pivotal role in aligning Six Sigma applications with their mission of influencing career advancement and optimizing salary strategies. They understood that while Six Sigma had traditionally found its place in larger organizations, its tools and techniques could be adapted and harnessed to benefit organizations of all sizes.

As the story unfolded, the HR professionals embarked on a journey to unleash the potential of Six Sigma within the context of their global organization. They recognized that the implementation of Six Sigma required an organizational alignment that went beyond its core principles. It involved fostering a culture of continuous improvement, data-driven decision-making, and collaboration across departments and regions.

Driven by the desire to improve career advancement opportunities for employees, the HR professionals strategically incorporated Six Sigma tools into their processes. They analyzed performance metrics, identified areas of improvement, and deployed targeted strategies to enhance employee growth and development. By reducing process cycle time, streamlining talent acquisition and retention, and optimizing performance evaluation systems, they ensured that employees had a clear path for career progression.

Additionally, the HR professionals recognized the impact of salary optimization strategies on employee motivation and job satisfaction. Leveraging Six Sigma methodologies, they identified factors influencing salary structures and implemented data-driven solutions to ensure equitable compensation, reward high performance, and align salaries with industry standards. This approach not only attracted top talent but also retained experienced professionals, creating a harmonious and motivated workforce.

The success of their efforts did not go unnoticed. The organization thrived as it witnessed increased employee engagement, improved productivity, and reduced turnover rates. The

integration of Six Sigma principles within HR practices not only contributed to individual career advancement but also bolstered the overall organizational performance.

As word spread about the unique application of Six Sigma in HR, other organizations took notice. Small to mid-sized companies, initially skeptical of Six Sigma due to perceived limitations, discovered that the tools and techniques could be adapted to their needs. They realized that the infrastructure required to support Six Sigma was a result of organizational size rather than a mandatory prerequisite.

Inspired by this realization, HR professionals across global organizations began implementing Six Sigma in their respective contexts. They customized the approach to suit their specific career advancement and salary optimization goals, leveraging the power of data, statistical analysis, and process improvement techniques.

In this new era, Six Sigma became synonymous with excellence in HR practices. It became the driving force behind career advancement opportunities, ensuring fair compensation, and fostering a culture of continuous improvement and innovation. HR professionals embraced the challenge of aligning Six Sigma with the diverse needs of a global workforce, leaving no stone unturned in their quest for organizational success.

In conclusion, the unique integration of Six Sigma into Factors Influencing Career Advancement and Salary Optimization Strategies for HR Professionals in global organizations transformed the HR landscape. By harnessing the power of Six Sigma, HR professionals paved the way for a harmonious and thriving workforce, where career growth and equitable compensation became the norm. The story of their journey serves as a reminder that with the right mindset and a commitment to improvement, organizations of all sizes can achieve greatness and unlock the full potential of their human capital.

Manufacturing

In the realm of global organizations, the powerful impact of Six Sigma on cost savings and process improvement became widely recognized. Notable companies such as Motorola, Johnson and Johnson, Texas Instruments, Telefónica de Espana, Sony, and Boeing emerged as shining examples of the significant benefits derived from implementing Six Sigma methodologies.

As the success stories of these organizations spread, HR professionals within global organizations took notice. They realized that the application of Six Sigma principles could not only revolutionize operational efficiency but also have a direct impact on the factors influencing career advancement and salary optimization strategies.

Motivated by the potential of Six Sigma to drive employee growth and enhance compensation structures, HR professionals began incorporating its principles into their strategies. They

recognized that a streamlined and efficient organization created through Six Sigma practices would provide a solid foundation for career progression and improved salary optimization.

By analyzing HR processes and identifying areas for improvement, HR professionals leveraged Six Sigma tools to eliminate waste and enhance productivity. They applied statistical methods to evaluate employee performance, identify skill gaps, and design targeted training and development programs. This led to increased competency levels, paving the way for accelerated career advancement opportunities within the organization.

Moreover, HR professionals utilized Six Sigma techniques to optimize salary structures and ensure equitable compensation. By analyzing market trends, benchmarking industry standards, and utilizing data-driven decision-making, they could align salaries with employee performance and industry benchmarks. This approach not only rewarded top performers but also motivated employees to strive for excellence and contribute to the organization's overall success.

The impact of these Six Sigma-driven strategies on HR practices within global organizations was profound. Employees experienced a heightened sense of fairness and transparency in career advancement opportunities, and their contributions were directly linked to tangible rewards. The optimization of salary structures fostered a culture of meritocracy and enhanced employee satisfaction, leading to higher levels of engagement and retention.

As the success stories of global organizations implementing Six Sigma in HR practices continued to emerge, it created a ripple effect across industries. HR professionals from various organizations embraced the unique approach and customized it to suit their specific needs. The power of Six Sigma was no longer confined to operational processes but extended to shaping career advancement paths and optimizing salary structures.

In this transformed landscape, global organizations thrived as they leveraged Six Sigma to drive excellence in HR practices. The integration of data-driven decision-making, waste

reduction, and continuous improvement not only enhanced employee career prospects and compensation but also contributed to the overall success and competitiveness of the organization.

In conclusion, the remarkable success achieved by organizations such as Motorola, Johnson and Johnson, Texas Instruments, Telefónica de Espana, Sony, and Boeing through Six Sigma practices served as a catalyst for HR professionals within global organizations. By incorporating Six Sigma principles into Factors Influencing Career Advancement and Salary Optimization Strategies, HR professionals harnessed the power of this methodology to create a culture of continuous improvement, fair compensation, and accelerated career growth. This unique integration of Six Sigma within HR practices propelled global organizations to new heights of success, where talent was nurtured, rewarded, and empowered to reach their full potential.

Engineering and construction

Although companies have considered common quality control and process improvement strategies, there's still a need for more reasonable and effective methods as all the desired standards and client satisfaction have not always been reached. There is still a need for an essential analysis that can control the factors affecting concrete cracks and slippage between concrete and steel. After conducting a case study on Tinjin Xianyi Construction Technology Co, Ltd., it was found that construction time and construction waste were reduced by 26.2% and 67% accordingly after adopting Six Sigma. Similarly, Six Sigma implementation was studied at one of the largest engineering and construction companies in the world: Bechtel Corporation, where after an initial investment of $30 million in a Six Sigma program that included identifying and preventing rework and defects, over $200 million were saved.

Finance

Six Sigma has played an important role by improving accuracy of allocation of cash to reduce bank charges, automatic payments, improving accuracy of reporting, reducing documentary credits defects, reducing check collection defects, and reducing variation in collector performance. Two of the financial institutions that have reported considerable improvements in their operations are Bank of America and American Express. By 2004 Bank of America increased customer satisfaction by 10.4% and decreased customer issues by 24% by applying Six Sigma tools in their streamline operations. Similarly, American Express successfully eliminated non-received renewal credit cards and improved their overall processes by applying Six Sigma principles. This strategy is also currently being applied by other financial institutions like GE Capital Corp., JP Morgan Chase, and SunTrust Bank, with customer satisfaction being their main objective.

Supply chain

In this field, it is important to ensure that products are delivered to clients at the right time while preserving high-quality standards from the beginning to the end of the supply chain. By changing the schematic diagram for the supply chain, Six Sigma can ensure quality control on products (defect-free) and guarantee delivery deadlines, which are the two major issues involved in the supply chain.

Healthcare

This is a sector that has been highly matched with this doctrine for many years because of the nature of zero tolerance for mistakes and the potential for reducing medical errors involved in healthcare. The goal of Six Sigma in healthcare is broad and includes reducing the inventory of equipment that brings extra costs, altering the process of healthcare delivery in order to make it more efficient and refining reimbursements. A study at the University of Texas MD Anderson Cancer Center, recorded an increase in examinations with no additional machines of 45% and a reduction in patients' preparation time of 40 minutes; from 45 minutes to 5 minutes in multiple cases

Criticism

Lack of originality

Quality expert Joseph M. Juran described Six Sigma as "a basic version of quality improvement", stating that "there is nothing new there. It includes what we used to call facilitators. They've adopted more flamboyant terms, like belts with different colors. I think that concept has merit to set apart, to create specialists who can be very helpful. Again, that's not a new idea. The American Society for Quality long ago established certificates, such as for reliability engineers.

Inadequate for complex manufacturing

Quality expert Philip B. Crosby pointed out that the Six Sigma standard does not go far enough—customers deserve defect-free products every time. For example, under the Six Sigma standard, semiconductors which require the flawless etching of millions of tiny circuits onto a single chip are all defective.

Role of consultants

The use of "Black Belts" as itinerant change agents has fostered an industry of training and certification. Critics have argued there is overselling of Six Sigma by too great a number of consulting firms, many of which claim expertise in Six Sigma when they have only a rudimentary understanding of the tools and techniques involved or the markets or industries in which they are acting.

Potential negative effects

A *Fortune* article stated that "of 58 large companies that have announced Six Sigma programs, 91 percent have trailed the S&P 500 since". The statement was attributed to "an analysis by Charles Holland of consulting firm Qualpro (which espouses a competing quality-improvement process)". The summary of the article is that Six Sigma is effective at what it is intended to do, but that it is "narrowly designed to fix an existing process" and does not help in "coming up with new products or disruptive technologies."

Over-reliance on statistical tools

A more direct criticism is the "rigid" nature of Six Sigma with its over-reliance on methods and tools. In most cases, more attention is paid to reducing variation and searching for any significant factors and less attention is paid to developing robustness in the first place (which can altogether eliminate the need for reducing variation). The extensive reliance on significance testing and use of multiple regression techniques increases the risk of making commonly unknown types of statistical errors or mistakes. A possible consequence of Six Sigma's array of P-value misconceptions is the false belief that the probability of a conclusion being in error can be calculated from the data in a single experiment without reference to external evidence or the plausibility of the underlying mechanism. One of the most serious but all-too-common misuses of inferential statistics is to take a model that was developed through exploratory model building and subject it to the same sorts of statistical tests that are used to validate a model that was specified in advance.

Another comment refers to the often mentioned Transfer Function, which seems to be a flawed theory if looked at in detail. Since significance tests were first popularized many objections have been voiced by prominent and respected statisticians. The volume of criticism and rebuttal has filled books with language seldom used in the scholarly debate of a dry subject. Much of the first criticism was already published more than 40 years ago (see Statistical hypothesis testing § Criticism).

Articles featuring critics have appeared in the November–December 2006 issue of *USA Army Logistician* regarding Six-Sigma: "The dangers of a single paradigmatic orientation (in this case, that of technical rationality) can blind us to values associated with double-loop learning and the learning organization, organization adaptability, workforce creativity and development, humanizing the workplace, cultural awareness, and strategy making."

Nassim Nicholas Taleb considers risk managers little more than "blind users" of statistical tools and methods. He states that statistics is fundamentally incomplete as a field as it cannot predict the risk of rare events—something Six Sigma is specially concerned with. Furthermore, errors in prediction are likely to occur as a result of ignorance for or distinction between epistemic and other uncertainties. These errors are the biggest in time variant (reliability) related failures.

Stifling creativity in research environments

According to an article by John Dodge, editor in chief of *Design News*, use of Six Sigma is inappropriate in a research environment. Dodge states "excessive metrics, steps, measurements and Six Sigma's intense focus on reducing variability water down the discovery process. Under Six Sigma, the free-wheeling nature of brainstorming and the serendipitous side of discovery is stifled." He concludes "there's general agreement that freedom in basic or pure research is preferable while Six Sigma works best in incremental innovation when there's an expressed commercial goal."

A *BusinessWeek* article says that James McNerney's introduction of Six Sigma at 3M had the effect of stifling creativity and reports its removal from the research function. It cites two Wharton School professors who say that Six Sigma leads to incremental innovation at the expense of blue skies research. This phenomenon is further explored in the book *Going Lean*,

which describes a related approach known as lean dynamics and provides data to show that Ford's "6 Sigma" program did little to change its fortune..

BUSINESS PROCESS MANAGEMENT

Managing business processes is a huge challenge in most organizations. Businesses aren’t investing enough effort in streamlining their business processes due to the lack of awareness about its repercussions. Here’s a definitive guide to managing your business processes with the help of automation.

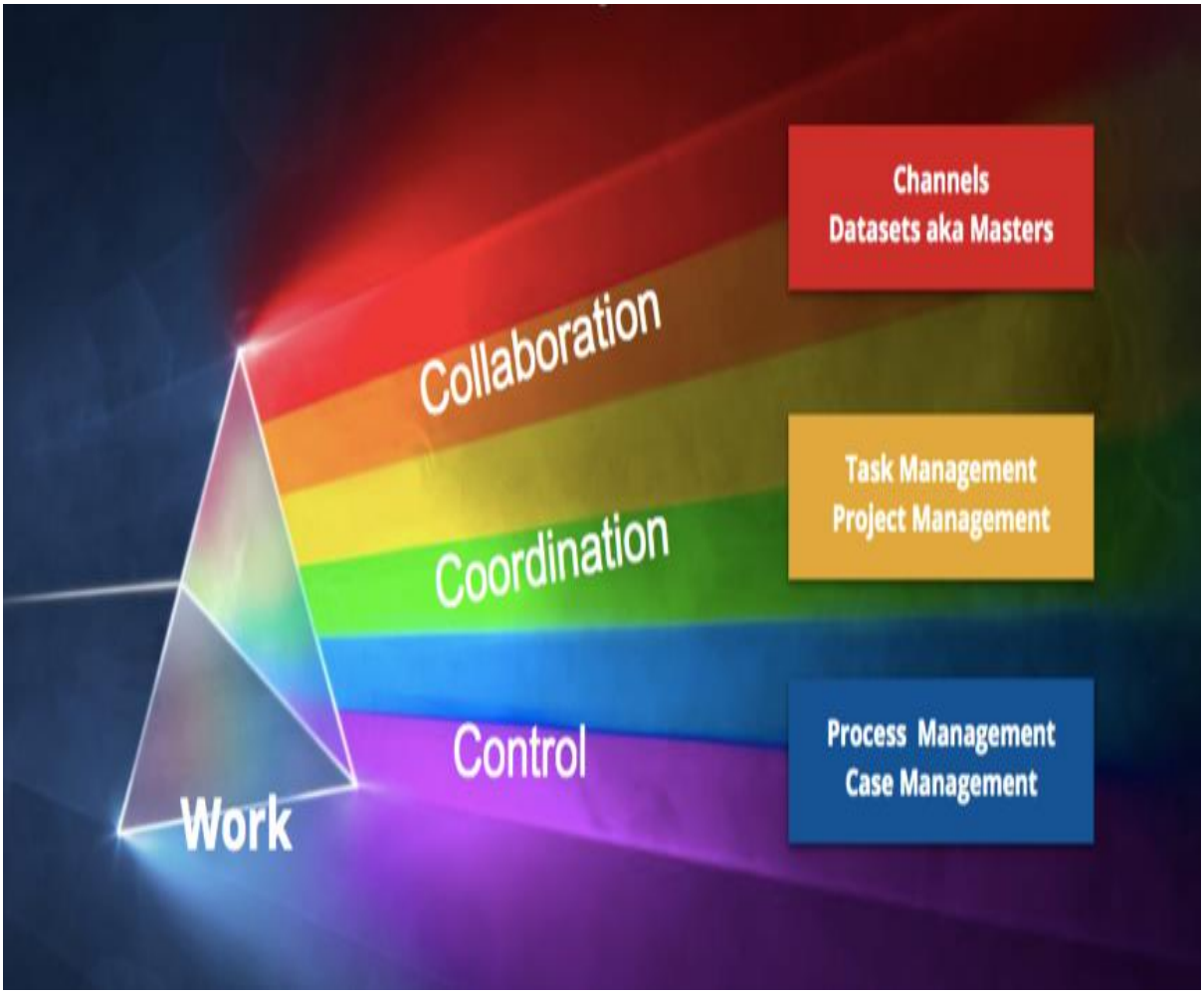
What is Business Process Management (BPM)?

Business Process Management (BPM) is how a company creates, edits, and analyzes the predictable processes that make up the core of its business.

Each department in a company is responsible for taking some raw material or data and transforming it into something else. There may be a dozen or more core processes that each department handles.

With Business Process Management, a company takes a step back and looks at all of these processes in total and individually. It analyzes the current state and identifies areas of improvement to create a more efficient and effective organization.

How does Kissflow differ from other BPM tools in context of Salary Optimization?



In the context of the factors influencing career advancement and salary optimization strategies for HR professionals, the application of business process management (BPM) becomes even more crucial. HR professionals play a vital role in managing and optimizing various processes within an organization, including talent acquisition, performance management, compensation and benefits, and employee development.

Kissflow's unique platform, with its combination of structured ongoing workflows, manual workflows, and structured one-off workflows, along with a channel-based collaborative tool, provides HR professionals with a powerful toolset to streamline and enhance their processes. By utilizing BPM principles through Kissflow, HR professionals can effectively manage and optimize the key processes that contribute to career advancement and salary optimization within their field.

With Kissflow, HR professionals can bring all aspects of their work under one roof, ensuring that processes are standardized, efficient, and aligned with organizational goals. By having structured ongoing workflows, HR professionals can establish clear career advancement

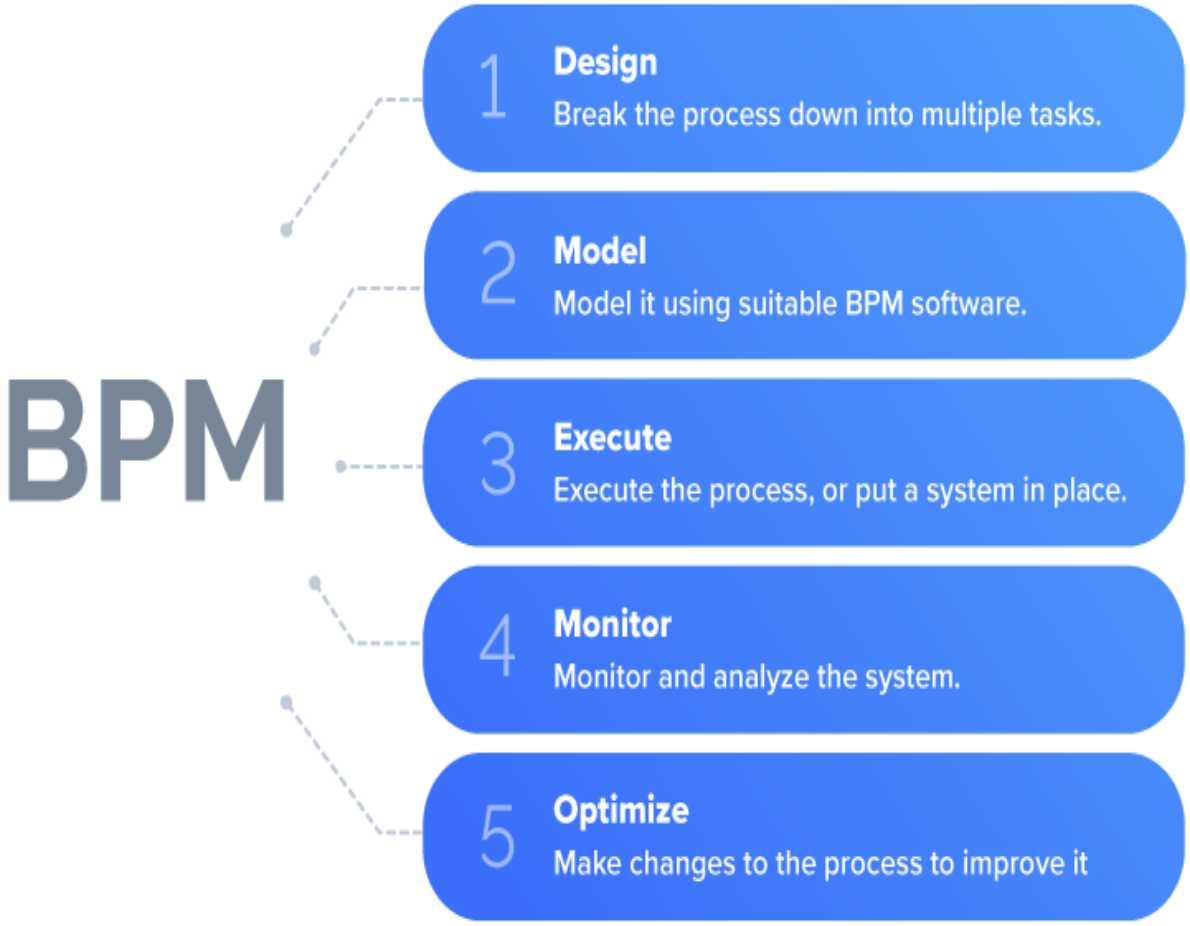
pathways, defining the necessary steps, criteria, and performance indicators for employees to progress in their careers. This ensures transparency, fairness, and equal opportunities for all employees.

Additionally, Kissflow's manual workflows enable HR professionals to handle ad-hoc situations and exceptions that may arise in the career advancement and salary optimization processes. This flexibility allows them to address unique circumstances, personalize career development plans, and make informed decisions that align with both individual aspirations and organizational requirements.

Moreover, the structured one-off workflows offered by Kissflow enable HR professionals to execute specific projects or initiatives related to career advancement and salary optimization. This could include implementing performance-based compensation systems, conducting market research on salary benchmarks, or designing training and development programs to enhance employees' skills and qualifications.

By integrating BPM principles into their work using Kissflow, HR professionals can ensure that processes related to career advancement and salary optimization are streamlined, efficient, and well-managed. This, in turn, leads to improved talent management, increased employee satisfaction, and better alignment between individual career growth and organizational goals. With Kissflow, HR professionals have a powerful tool to drive their efforts in creating a conducive environment for career advancement and optimizing salary strategies within their organizations.

BPM Life Cycle:



Here are the steps in business process management:

Step 1: Design

Most processes include a form to collect data and a workflow to process it. Build your form and identify who will own each task in the workflow.

Step 2: Model

Represent the process in a visual layout. Fix details like deadlines and conditions to give a clear idea of the sequence of events, and the flow of data through the process.

Step 3: Execute

Execute the process by testing it live with a small group first and then opening it up to all users. Make sure you restrict access to sensitive information.

Step 4: Monitor

Keep an eye on the process as it runs through the workflow. Use the right metrics to identify progress, measure efficiency, and locate bottlenecks. Here is a more detailed article about this step.

Step 5: Optimize

In the realm of global organizations, HR professionals have recognized the need for efficient and streamlined business processes to drive career advancement and optimize salary strategies. Incorporating Business Process Management (BPM) principles has emerged as a transformative approach to achieving these goals.

One area where BPM can revolutionize HR practices is in the onboarding process. Many organizations struggle with complex and chaotic onboarding procedures, leading to inefficiencies and dissatisfaction among new employees. By applying BPM principles, HR departments can automate and streamline the onboarding process from end to end. This automation reduces costs, saves time, and eliminates the need for cumbersome paper forms. By embracing BPM, HR professionals can create a seamless onboarding experience that sets the stage for career advancement and employee satisfaction.

In the sales department, BPM can address challenges related to invoice approval. Sales teams often face delays and errors in obtaining invoice approvals from the Accounts Receivable (AR) team. These delays can negatively impact sales performance and frustrate salespeople. By leveraging BPM, organizations can automate the invoice approval process, minimizing manual errors and eliminating the back-and-forth communication between sales and AR teams. This streamlined process empowers sales professionals to focus on their core responsibilities, fostering career growth and enhancing overall sales performance.

The finance department, being responsible for managing financial transactions, also greatly benefits from BPM. Finance teams often deal with a significant volume of paper forms and emails related to various financial processes, such as approvals and expense management. Implementing a BPM system enables finance professionals to efficiently manage these processes, reducing paperwork, improving accuracy, and increasing productivity. By leveraging BPM, HR professionals in the finance department can optimize their workflows, leading to enhanced career prospects and improved salary optimization strategies.

A competent BPM tool for HR professionals should possess essential features tailored to their specific needs. These features include a visual process diagramming tool, a drag-and-drop form designer, role-based access control, mobile support, powerful administrator features, single sign-on (SSO) capability, seamless integration with existing software systems, robust reports and analytics, performance scalability for large user bases, and process performance metrics. HR professionals must consider these features when selecting a BPM solution to ensure they can effectively streamline processes, drive career advancement, and optimize salary strategies.

Incorporating BPM into HR practices within global organizations empowers HR professionals to create a culture of efficiency, transparency, and continuous improvement. By embracing BPM principles, HR professionals can optimize business processes, reduce waste, and enhance productivity, directly influencing factors influencing career advancement and salary optimization strategies. This unique integration of BPM within HR practices positions global organizations to attract and retain top talent, foster employee growth, and achieve sustainable success in an increasingly competitive landscape.

The top 5 BPM Software: how do they compare?

Brand Name	Popular With	Process Design	Operational Ease	Pricing	Support
Nintex	SMBs, enterprise	Browser-based intuitive design	On-prem	By quote	None (open-sourced)
Process Maker	Corporations, governments, and organizations looking for an enterprise scale	BPMN 2.0	Different editions of on-prem and cloud	Starts at $1000/month (unlimited users)	Video documentation, email, webinars, instant chat
Kissflow	SMBs, mid-market	Human-centric drag and drop interface	Cloud-based	Starts at $390, 4.3/5 – 445 (Votes) Learn more.	Video documentation, email, webinars, instant chat

Brand Name	Popular With	Process Design	Operational Ease	Pricing	Support
Bizagi	SMBs, medium businesses, enterprises	Bizagi BPMN Modeler	Cloud hosted/on-prem	Perpetual user license for $800/year+$134 maintenance fee (or) 1-year user license for $311/year	Basic for free (with no SLAs) or premium support at an extra cost
Zoho Creator	Freelancers, small- and mid-size businesses, and enterprise	Script builder to drag and drop snippets of code	Web-based, on prem, or can be self-hosted	$5-$15/user/month (depending on license plans)	Email, phone, training, ticket escalation

Now that you know why exactly a BPM system is necessary, the question is which one to get. To help you make this rather tricky choice, here's a list we've compiled. You'll see 5 of our top picks for competent BPM software, compared head to head.

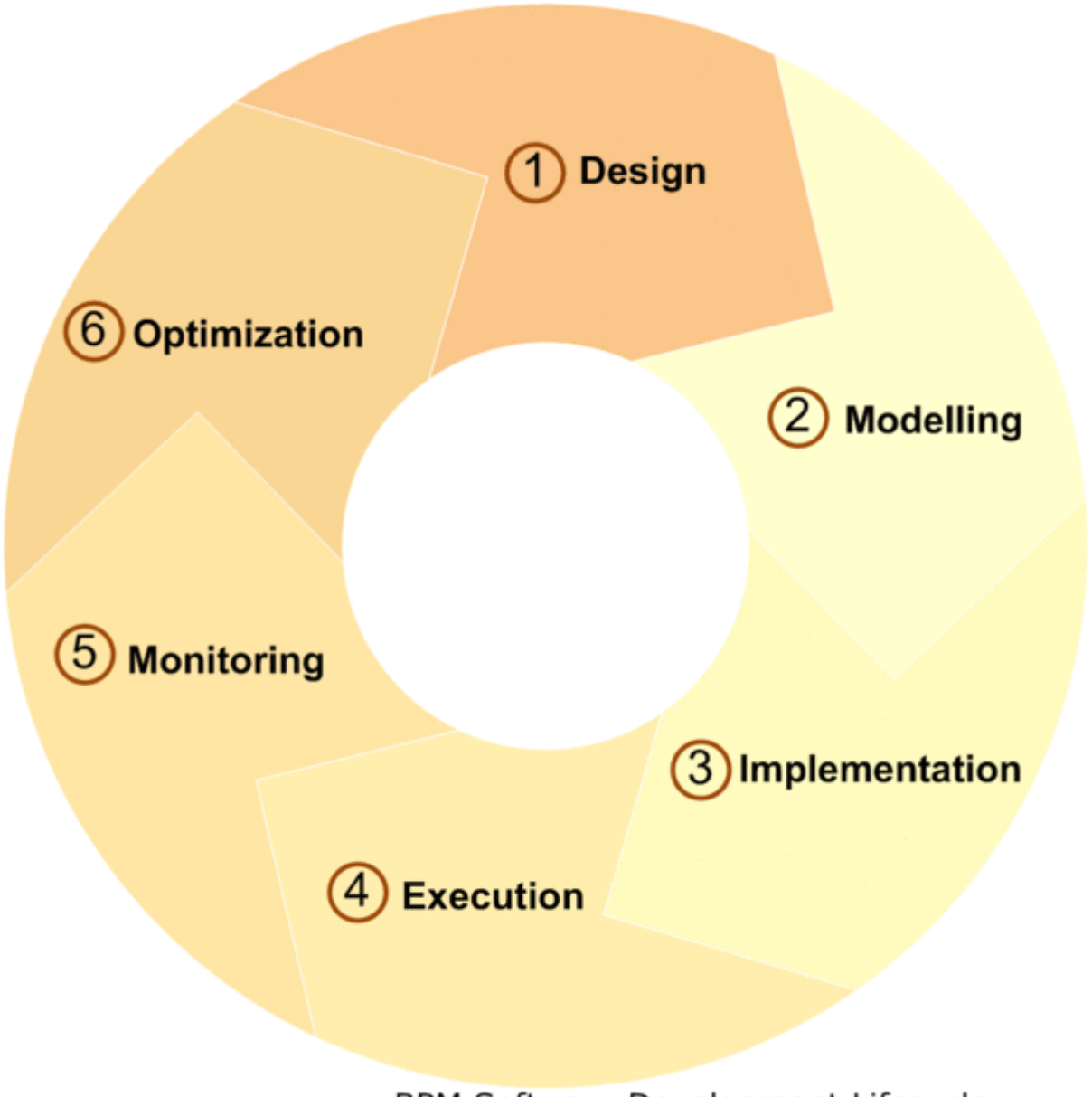
Is BPM really expensive?

Usually, yes. Business process management (BPM) system can get quite complex. Installing an on-premise solution might cost more than $250,000 after technology and consultant costs are included. But, the complete Kissflow Process starts at just $390/month to make BPM much more affordable. Plus, there's no extra fees for support.Why don't you give it a try? Pick a process that has been hard for you to automate and get started with Kissflow today.

6 Steps To Business Process Management Success

Want to automate, monitor, measure and continually optimize your business? Business Process Management(BPM) is the management approach to get the job done.

BPM is a continual process of 6 steps.



BPM Software Development Lifecycle
© simplicable.com

1. Design

Existing processes and to-be processes are discussed amongst stakeholders and documented.

The design includes process flows, roles, notifications and escalations, service level agreements, workflow task user interfaces and task management mechanisms.

Many BPMS have tools to facilitate design — it is also common to document the design using Microsoft office or other office packages.

2. Modelling

Modelling takes the design and considers how the process might operate in different scenarios. This what-if analysis considers real world business conditions. For example:

- what if shipping is delayed?
- what if critical personnel call in sick?
- what if the customer cancels their account?
- what if a partner's system goes down?

Modelling is often conducted by a Business Analyst. However, it is critical that the managers who own the process and working level staff be involved in generating the list of what-if scenarios.

What-if scenarios should be ranked according to likelihood and impact. It is not important for the business process to handle unlikely or low impact scenarios.

BPMS often include modelling tools that allow simulation of business scenarios.

3. Implementation

Developers implement the business models. This involves:

- creating process flows
- data mapping
- creating user interfaces for workflow steps
- integration with enterprise data sources and systems
- setting up users and roles and associating with process steps.

4. Execution

The new business processes are operationalized. This may involve:

- deployment of business processes to the production BPMS
- staff training
- organizational changes to align with new processes

5. Monitoring

Processes are monitored and process metrics are collected.

6. Optimization

Process monitoring data is analyzed to determine how well the process performs in real business conditions. The process is continually improved according to the same 6 steps.

Process Excellence

The movement towards total quality or performance excellence as the operating model for organizations is growing at an accelerated pace. This approach is applicable to organizations of all sizes, in the manufacturing, service, education and healthcare sectors.

In Global, the criteria for performance excellence come in two versions: The Malcolm Baldrige performance excellence criteria have been adopted for the IMC

Ramkrishna Bajaj National Quality Award; and the European quality award criteria for the CII-Exim Business Excellence Award. In terms of core values, the two are similar.

Each of the two models emphasizes that work flows horizontally across functions to the customer. This work, a process, should be managed efficiently in order to deliver quality outputs to the customer.

At the recent Nasscom Global Leadership Forum 2009, N R Narayana Murthy,

chief mentor of Infosys, said that though the world has seen tough times in 1989- 1993 and 1999-2002, the present global recession could be the mother of all recessions. There was a wide consensus that quality and efficiency of management processes is the key to survival, and perhaps progress.

The case for using process improvement methodologies is now beyond question. Care should be taken to adopt a structured process improvement methodology such as Six Sigma, Lean, TPM, or 'Juran on Quality Improvement.' The power of any such methodology, when integrated with the IMC RBNQA or CII EXIM criteria, provides for outstanding monetary and non-monetary performance results.

PROCESS IMPROVEMENT TECHNIQUES

The first step towards streamlining your work processes is identifying what's slowing them down. There are many process improvement methodologies to identify bottlenecks and inefficiencies in your processes.

This guide gives a quick overview of each of the process improvement techniques. We'll do deep dives on each subsequently in this series.

Here we list down the most effective ones that you can easily make use of. Scroll down to find out,

Lean tools

- 5S
- Value Stream Mapping
- Kaizen (PDCA Cycle)

Six Sigma Tools

- DMAIC
- DMADV

- Cause and Effect Analysis
- SIPOC Analysis
- Process Maps / Process Flowcharts

Other

- BPMN Process Maps

Lean Tools

Lean tools are used to eliminate wasteful process steps or activities that do not add any value.

The **8 types of waste** you'll be able to remove with the following Lean tools are

- **Defects**
- **Overproduction**
- **Waiting**
- **Non-utilized talent**
- **Transportation**
- **Inventory**
- **Motion**

- **Extra-processing**

Getting rid of these wasteful steps in your processes will help you improve product quality, reduce lead time and reduce total cost.

Here are 3 Lean tools that you can use to improve your business processes.

5S

An organized office environment is essential to efficient processes. With the 5S methodology, you can create a clean, safe, and productive environment for your team.

Generally used in:

All types of industries, from manufacturing to small businesses

Useful for:

- promoting safety
- lowering costs
- increasing process/team efficiency
- driving out waste from manufacturing processes

Documentation:

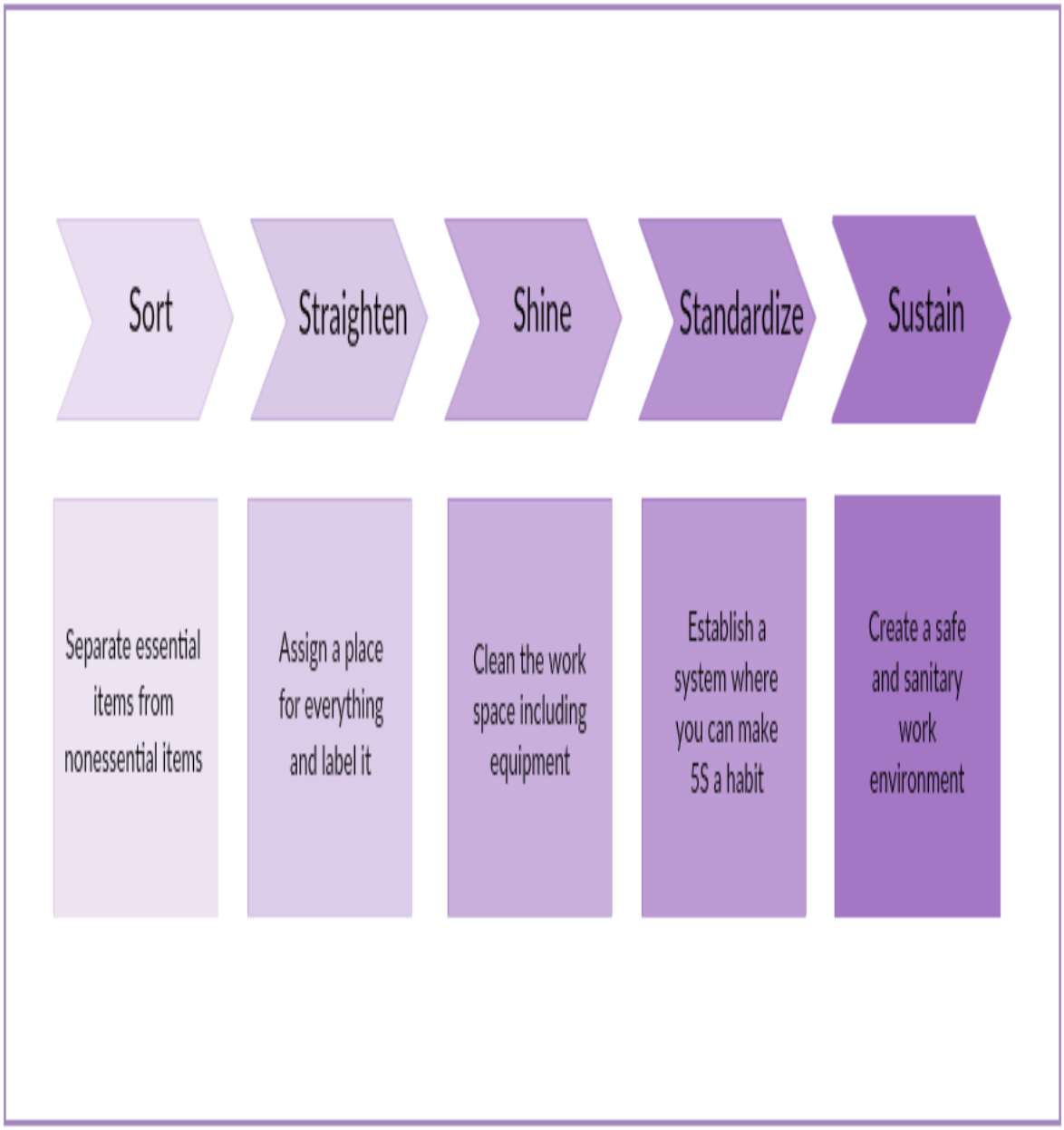
- Photographs (of workspaces before and after implementing 5S)
- Team activity documents or checklists
- Evaluation forms to check the status of the first 3 steps
- List of guidelines to keep the office organized and clean

Ease of use:

As it does not require any technical analysis, it can be used by everyone at work

How to use:

Here are the steps you need to follow when implementing 5S


Sort
Straighten
Shine
Standardize
Sustain
Separate essential items from nonessential items
Assign a place for everything and label it
Clean the work space including equipment
Establish a system where you can make 5S a habit
Create a safe and sanitary work environment

Value Stream Mapping

A value stream map is a graphical representation of the flow of materials and information that are needed to bring your product or service to your customer.

Generally used in:

Manufacturing industry

Useful for:

- Identifying waste within and between processes
- Gaining insight into the decision-making and the process flows
- Identifying and prioritizing areas for improvement
- Setting measurable goals for improvement tasks

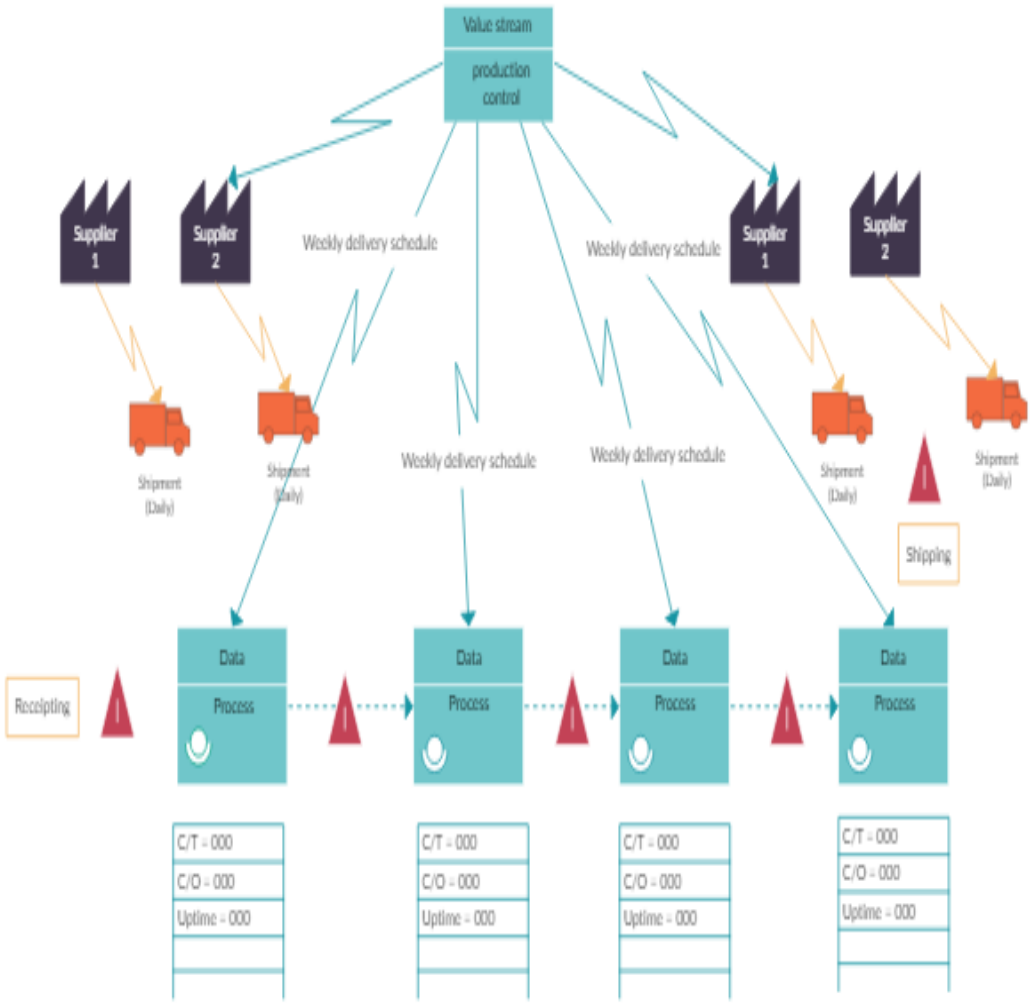
Documentation:

- Current state map showing how you serve your customers at present
- Future-state map showing how the process will look like once the changes are made

Ease of use:

The mapping process can take up to 3 days to complete, but with the right team, it can be done faster.

How to use:



Kaizen

Kaizen is a technique that calls for the constant improvement of every function of your business. It can be implemented through the PDCA cycle.

Generally used in:

Management departments, but also by those in quality control circles, waste disposal analyzers and common workers

Useful for:

- Improving processes, quality of products/ services and customer satisfaction
- Improving team productivity and job satisfaction
- Promoting better safety and faster delivery

Documentation:

- Reports of the current situation of the workplace
- Surveys to check the team’s attitude towards job satisfaction

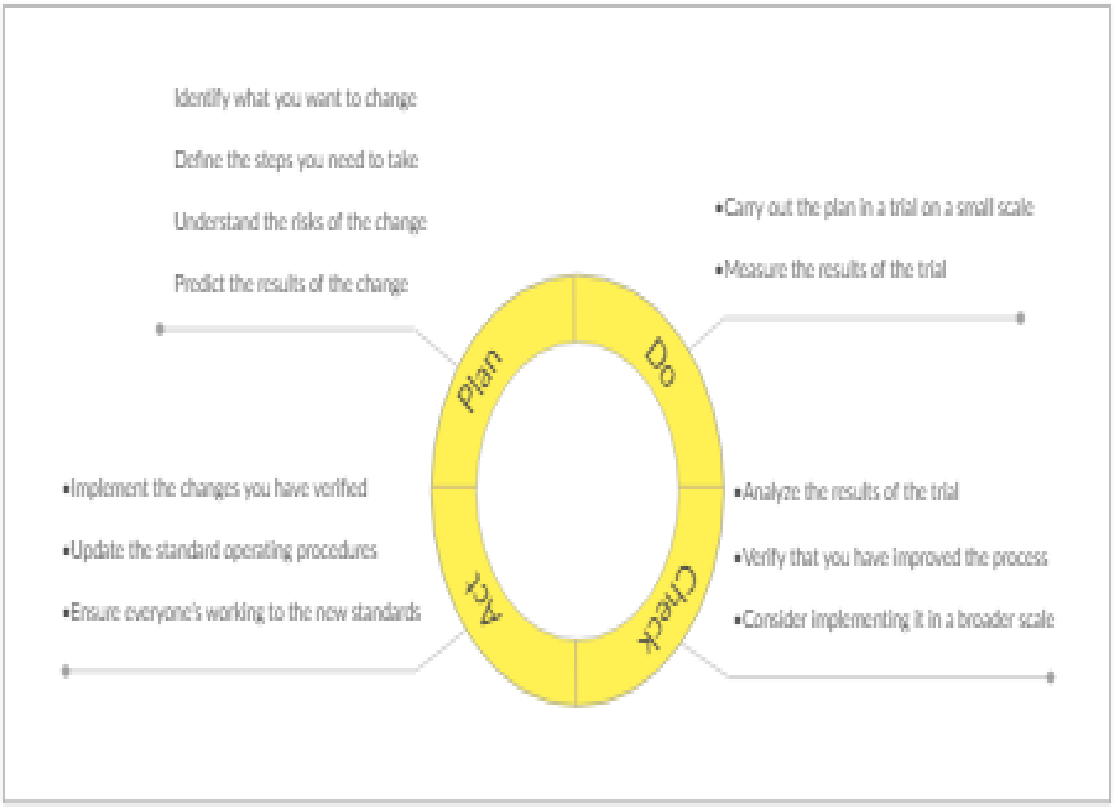
- Kaizen strategy plan aiming to improve team productivity

Ease of use:

It’s an ongoing process and requires the active contribution of the entire company

How to use:

Follow the steps below in each stage of the cycle for optimal results.



Six Sigma Tools

Six Sigma is simply a smarter way to manage a business. It's about collecting data on processes to understand what's happening. This data is then analyzed and interpreted to find effective ways to improve the process. By doing so you get to

- Increase customer satisfaction
- Reduce cycle time
- Reduce defects

Let's look at a few six sigma tools that are widely used to improve processes in businesses.

DMAIC

DMAIC is a 5-step method (a direct descendant of the Plan-Do-Check-Act Cycle) that is used to improve current processes.

If your products/ services or business processes aren't meeting your customer expectations or not performing well, DMAIC can help you figure out why and find long-term solutions to the problem.

Generally used in:

All types of industries, especially by teams working on projects

Useful for:

- Improving processes or products
- Finding solutions for problems within processes
- Cutting excess costs and time

Documentation:

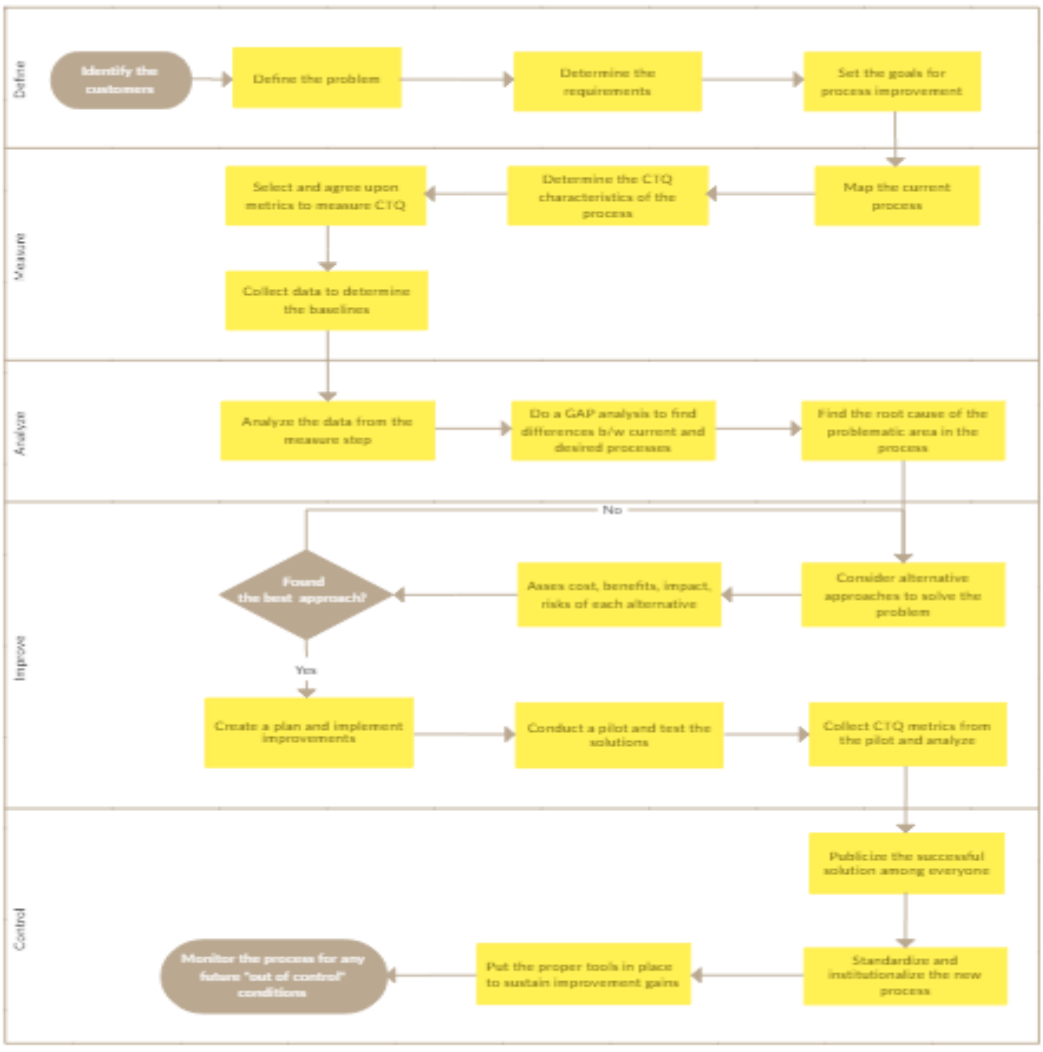
- Project charter
- Process map with process inputs and outputs
- Data on the performance of the project
- Documentation of the new solution

Ease of use:

It can be rolled out in a matter of month or over the course of a year

How to use:

Following are the steps you should take to implement the DMAIC method.



DMADV

DMADV, also known as Design for Six Sigma (DFSS) is used to create new processes at Six Sigma quality level.

If your existing processes do not meet the required quality levels even after they have been optimized, it’s time to do a DMADV to bring about an evolutionary change. Or in other words, create a new and better process.

Generally used in:

All types of industries, especially in manufacturing

Useful for:

- Developing a new process/ product
- Reducing the errors in a product line
- Improving customer satisfaction
- Increasing profits

Documentation:

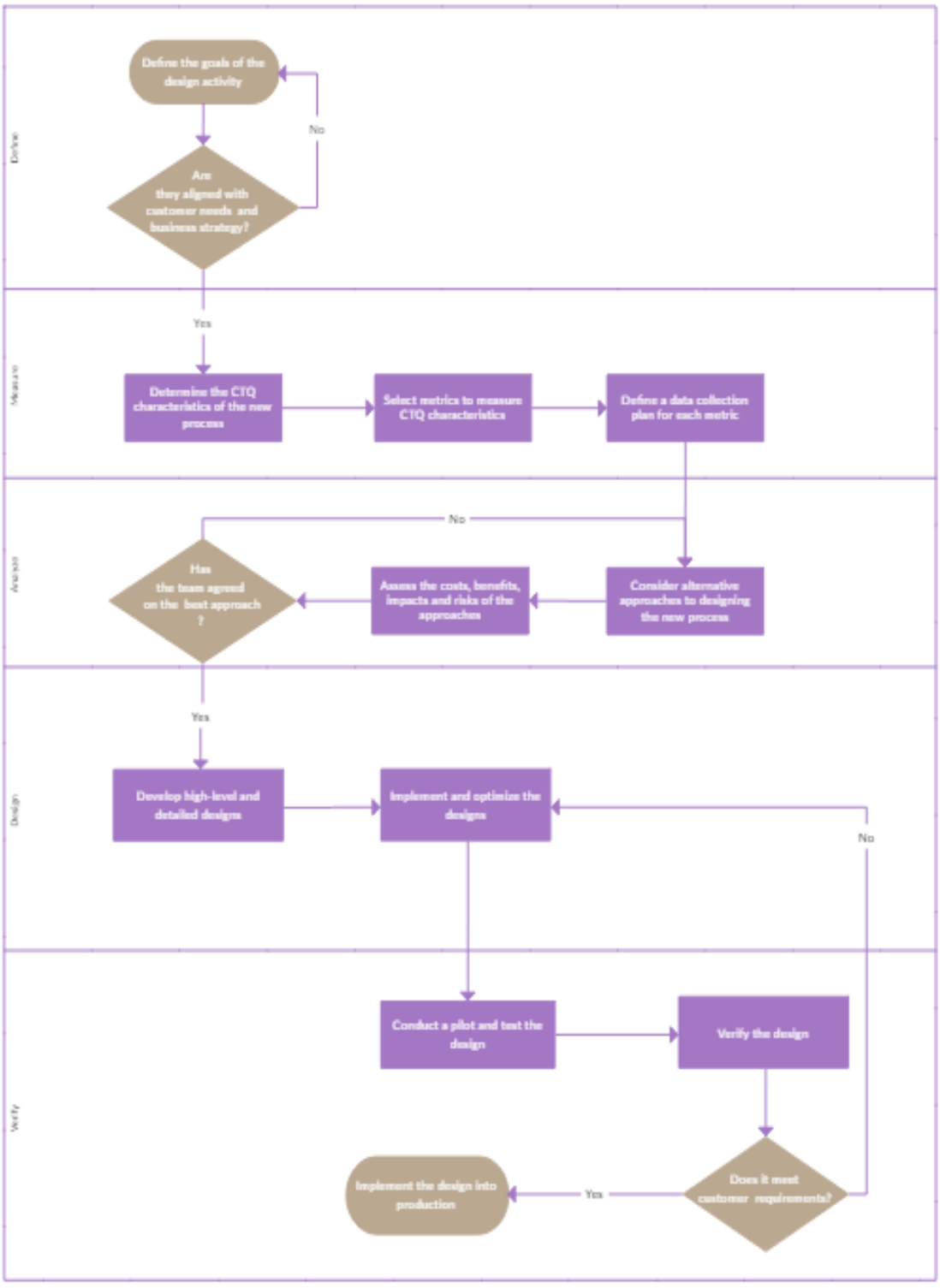
- Information on historical process/ product data
- Customer feedback/ reviews

Ease of use:

This methodology can be rolled out over the course of several months or even years

How to use:

Follow these steps to implement DMADV


Define
Define the goals of the design activity
Are they aligned with customer needs and business strategy?
No
Yes
Measure
Determine the CTQ characteristics of the new process
Select metrics to measure CTQ characteristics
Define a data collection plan for each metric
Analyze
No
Has the team agreed on the best approach ?
Assess the costs, benefits, impacts and risks of the approaches
Consider alternative approaches to designing the new process
Design
Yes
Develop high-level and detailed designs
Implement and optimize the designs
No
Verify
Conduct a pilot and test the design
Verify the design
Does it meet customer requirements?
Yes
Implement the design into production

Cause and Effect Analysis

It’s also known as fishbone diagram or Ishikawa diagram. It is a technique that can be used to visually display the causes of a certain issue or effect.

Generally used in:

All types of industries

Useful for:

- Identifying and analyzing all possible causes for a problem/ effect
- Facilitating team problem-solving brainstorming sessions

Documentation:

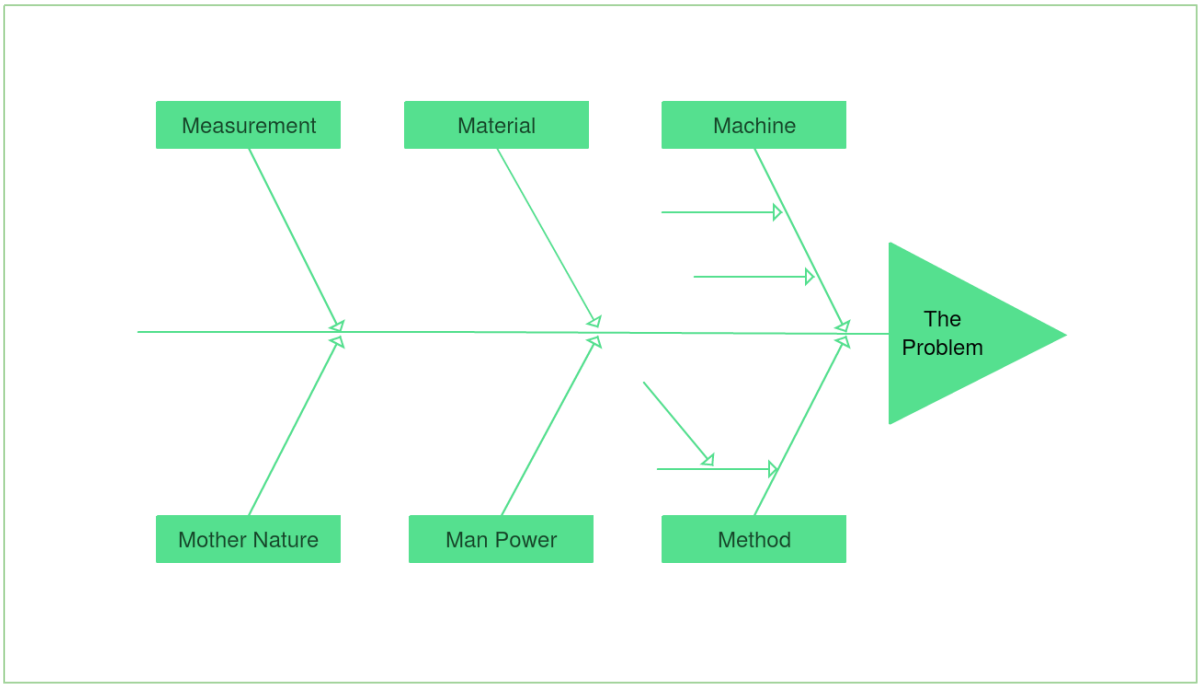
Documents on information related to the issues that are being analyzed

Ease of use:

Can help a team identify and analyze causes of a problem in a single brainstorming session

How to use:

Here’s the ultimate guide to fishbone diagrams to help you get started.



SIPOC analysis

The SIPOC analysis is a technique that helps organize data on people and things that are involved in your business processes.

Generally used in:

Manufacturing industry

Useful for:

- Identifying all relevant elements needed for a process improvement project
- Define complex projects that are not properly scoped
- Understanding the process during the define phase of DMAIC

Documentation:

In the SIPOC analysis you'll be listing data under each of these following categories, and therefore you'll need information on them.

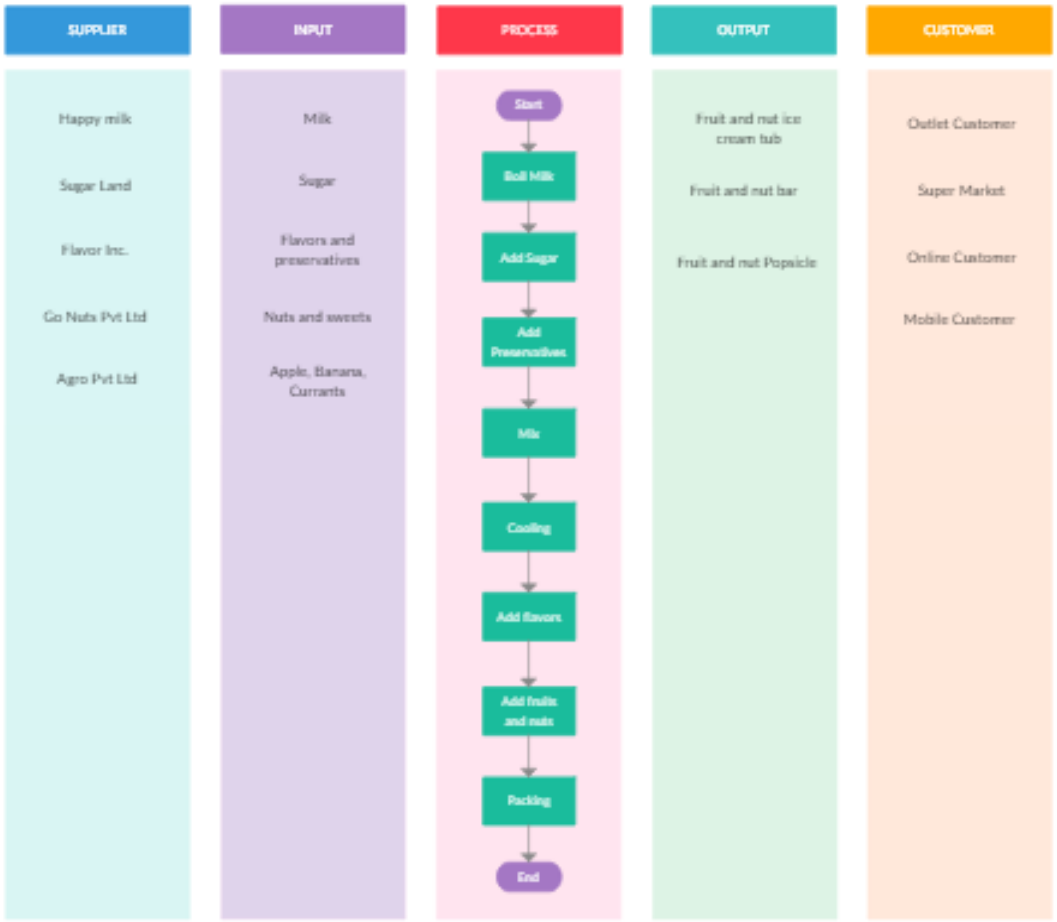
- *Supplier*: the people, departments, organizations etc. that provide you the input needed to carry out a process
- *Input*: raw material, equipment, forms or information and even people that are needed to carry out a process
- *Process*: a graphic of the process steps
- *Output*: a list of things the process provides to the internal and external customer
- *Customer*: a list of internal and external customers who will be receiving your outputs

Ease of use:

The 5 columns are filled during a brainstorming session. As long as the relevant information is provided by the team, the diagram can be completed and analyzed quickly.

How to use:

Gather your team and list down the above information in a diagram/ table like the one below.



Process Maps

Process maps graphically represent each step of a process. And they are an essential part of process documentation.

Generally used in:

All types of industries, from manufacturing to marketing

Useful for:

- Understanding how processes work
- Identifying process areas that need change

Documentation:

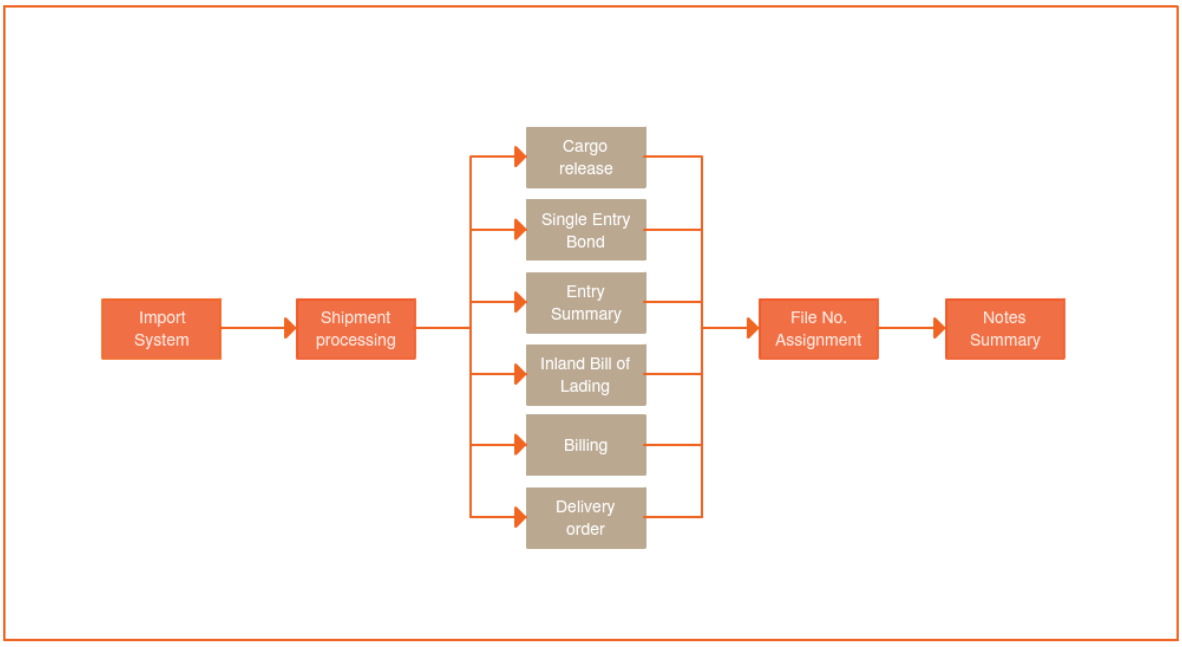
- Information available on the process that is being mapped
- Job descriptions and responsibilities of those who are involved in the process

Ease of use:

To map a process, you need the participation of those who are involved. Gathering them in one place, mapping the process and analyzing it may span over a few days, especially if the process is complicated.

How to use:

Gather your team, brainstorm the process steps, identify process boundaries, put the steps in a sequential order, draw the process map and verify that the map is accurate.



BPMN Process Maps

A Business Process Modeling Notation map is the standardized way to create visual models of your business processes.

Generally used in:

All types of industries, especially by business analysts

Useful for:

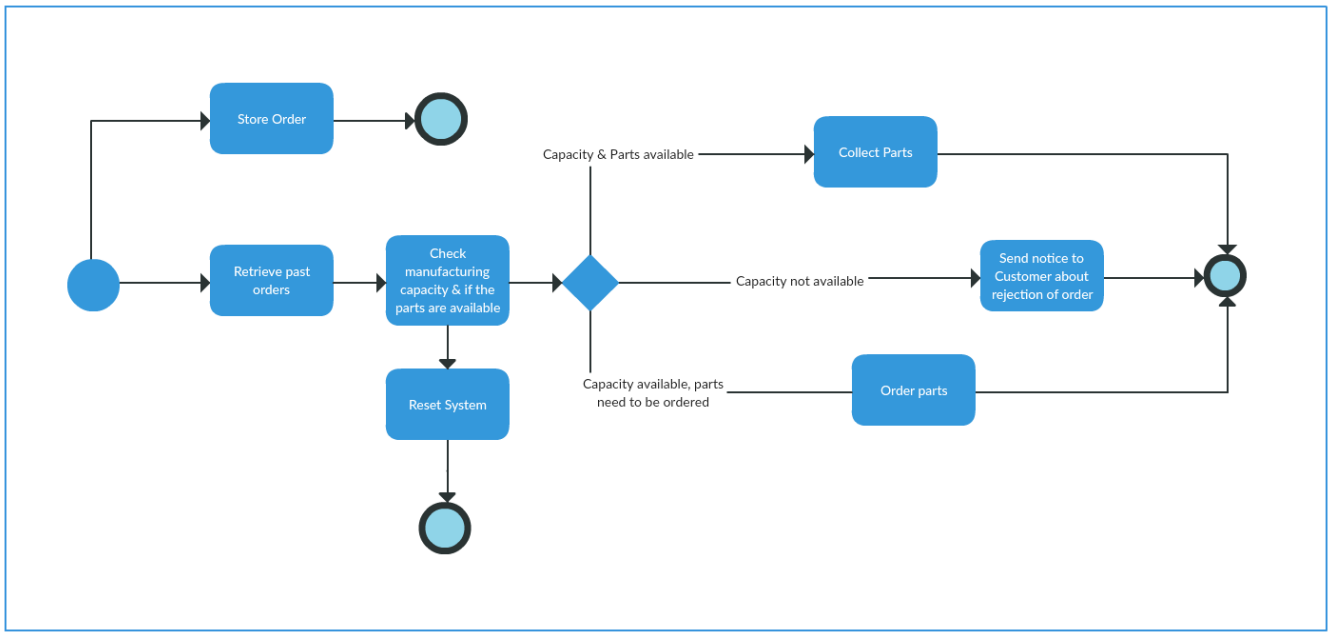
- Breaking down business processes for easy analysis
- Identifying errors within processes
- Designing entirely new processes
- Helping stakeholders understand how the business is run

Documentation:

Information on the inputs, outputs, etc. of the business process

Ease of use:

If you are familiar with the standards of BPMN, drawing the diagram can be done within a day, as long as you have a clear idea of how the process spans out.



Want to Expand the List of Business Process Improvement methodologies?

We've covered a number of handy business process improvement methodologies that you can use to streamline your workflow and increase your team's productivity. Use them and share with us how they helped you reach your targets.

What other process improvement methodologies do you use?

Which Process Improvement Methodology Should You Use?

Process Improvement Methodologies

- Six Sigma**: A data-driven approach to reduce defects to improve an organization's performance.**
- Lean manufacturing**: A systematic process to minimize waste without sacrificing productivity.**
- Lean Six Sigma**: A combination of Lean and Six Sigma methodologies.**
- Total Quality Management (TQM)**: An organization-wide effort focused on continuous improvement to improve customer quality.**
- Toyota System Production/Just-in-time**: Methodology centered around reducing inventory costs, manufacturing products only as they're needed.**
- Theory of Constraints**: A systematic process focused on finding and eliminating constraints.**

Process engineers evaluate and develop processes to increase productivity and scale their businesses. To fulfill this role, you need a process for evaluating and improving processes. Talk about meta.

You don’t have to reinvent the wheel to find a methodology that works for process improvement, but you might not be sure which methodology to use when professionals throw around terms like DMAIC and TQM. Learn more about the top approaches to process improvement below and the diagrams that can assist you through every step.

Six Sigma

Six Sigma began at Motorola, became a core part of the strategy at General Electric, and has since been used widely for manufacturing and business processes. This method helps companies measure defects or inconsistencies in a process to deliver perfect products and services.

Within Six Sigma, process engineers use two sub-methodologies, DMAIC for improving existing processes and DMADV for creating new processes. The more widely used of the two, DMAIC follows these steps:

- **Define** the opportunity for improvement (project goal).
- **Measure** the performance of your existing process.
- **Analyze** the process to find any defects and their root causes.
- **Improve** the process by addressing the root causes you found.
- **Control** the improved process and future process performance to correct any deviations before they result in defects.

DMADV follows similar steps, though users will look at different factors since a process does not exist yet:

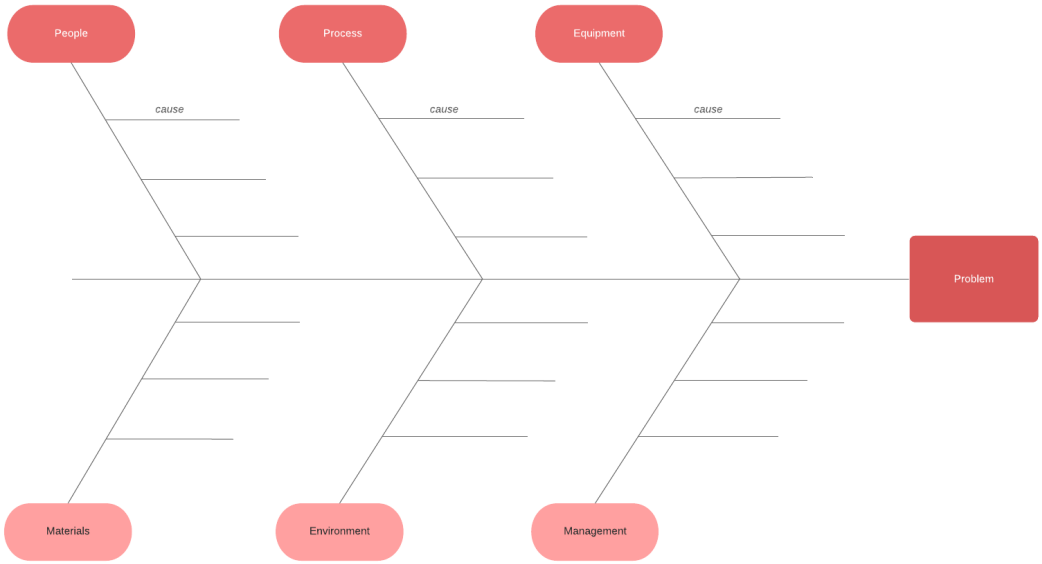
- **Define** the process goal, keeping in line with the overall company strategy and customer needs.
- **Measure** the factors that are critical to quality (called CTQs).
- **Analyze** various design and development options.
- **Design** the process.
- **Verify** that the design meets process goals and customer needs. Pilot the process and, if successful, implement the process.

Six Sigma relies on data and statistics to make decisions more than other methodologies. By using DMAIC and DMADV, Six Sigma organizations should see clear financial returns and strive for less than 3.4 defective features in every million opportunities, or chances for a defect.

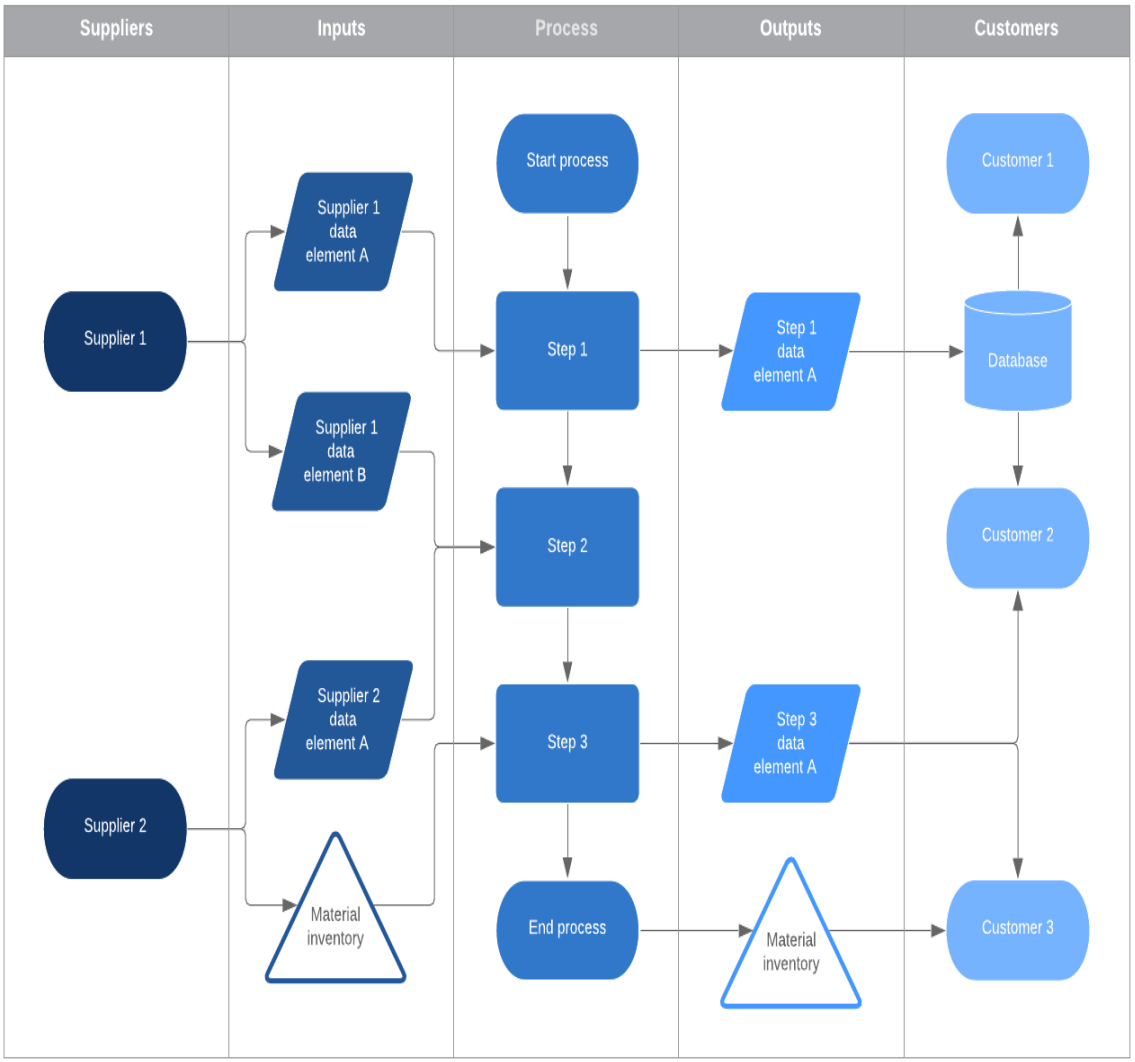
Diagrams for Six Sigma

While Six Sigma offers strong standards on its own, it borrows from other process improvement tools to help professionals complete the DMAIC process. As you define and analyze your current process, you might use these diagrams.

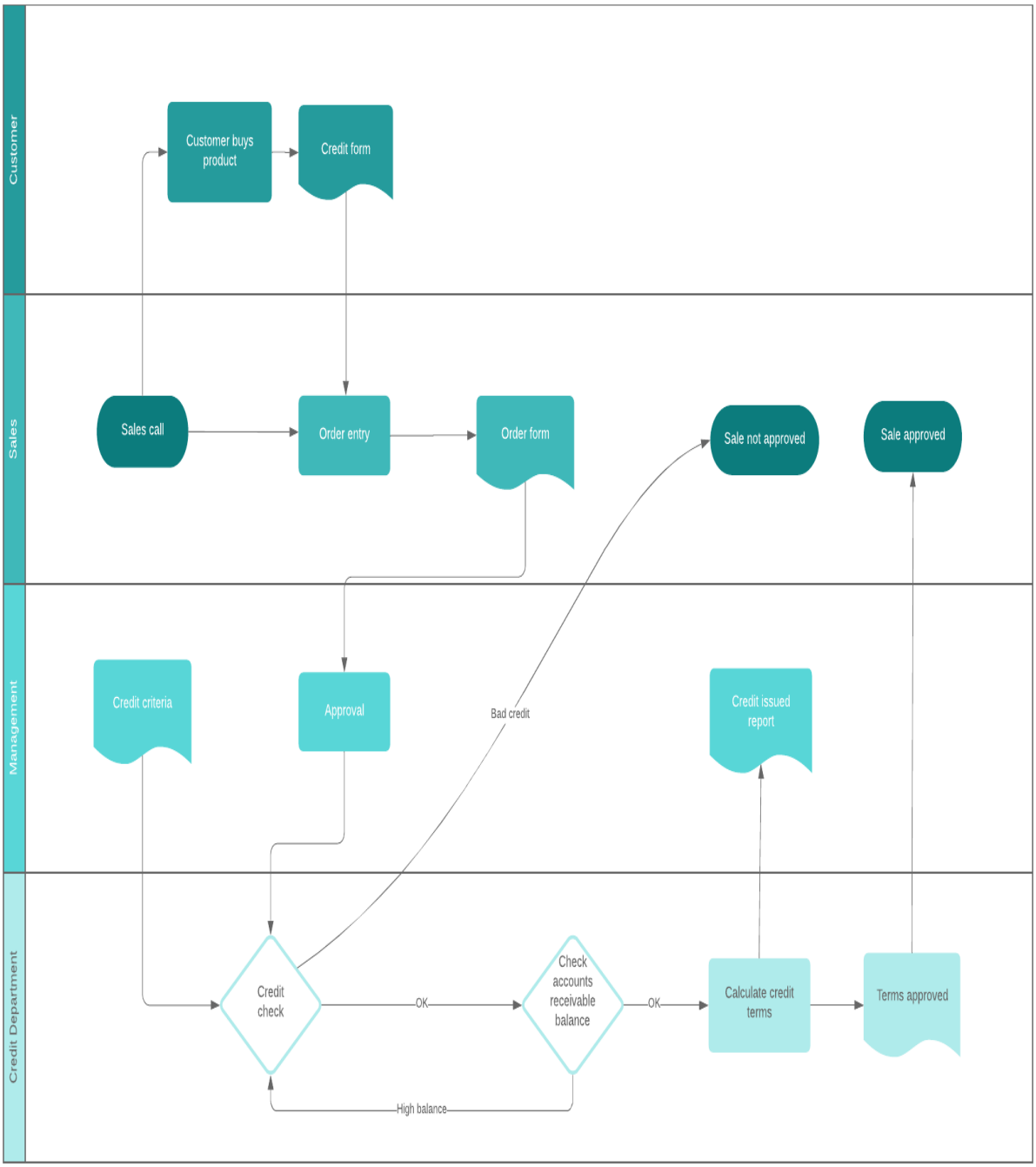
Ishikawa diagram/fishbone diagram**:** Also known as cause-and-effect diagrams, these visuals can help you brainstorm potential causes of a defect. Resembling a fishbone, the head of the diagram states the problem, and the lines branch out into different categories of causes.



SIPOC analysis diagram: Use to define your process by Supplier, Input, Process, Output, and Customer.



Business process mapping**:** Visualize your entire business process, taking into consideration account roles, responsibilities, and goals. Use business process maps to analyze your organization's activities to improve productivity.


Customer
Customer buys product
Credit form
Sales
Sales call
Order entry
Order form
Sale not approved
Sale approved
Management
Credit criteria
Approval
Bad credit
Credit issued report
Credit Department
Credit check
OK
Check accounts receivable balance
OK
Calculate credit terms
Terms approved
High balance

Lean Manufacturing

As the name would suggest, the Lean methodology strives to cut costs by eliminating waste. Although it is often referred to as Lean manufacturing, Lean's core ideas can apply to every organization and process. (See our complete breakdown of Lean vs. Six Sigma.)

Someone using this method would evaluate a process's value stream. The value stream consists of value-added activities (the actions a customer would pay for) or non-value-added activities in the process that either brings a concept to fruition or completes an order.

Any action that doesn't add value or isn't required as part of a policy or regulation is waste. Waste can include:

- **Transportation:** the movement of products unnecessary for the process
- **Inventory:** materials that aren't required to process current orders
- **Motion:** people or equipment that move more than necessary to complete the process
- **Waiting:** periods of inactivity or interruptions in production
- **Overproduction:** excessive production of materials ahead of demand
- **Overprocessing:** extra work due to redundancies or poor tool/product design
- **Defects:** the effort involved in checking for and fixing defects in the system

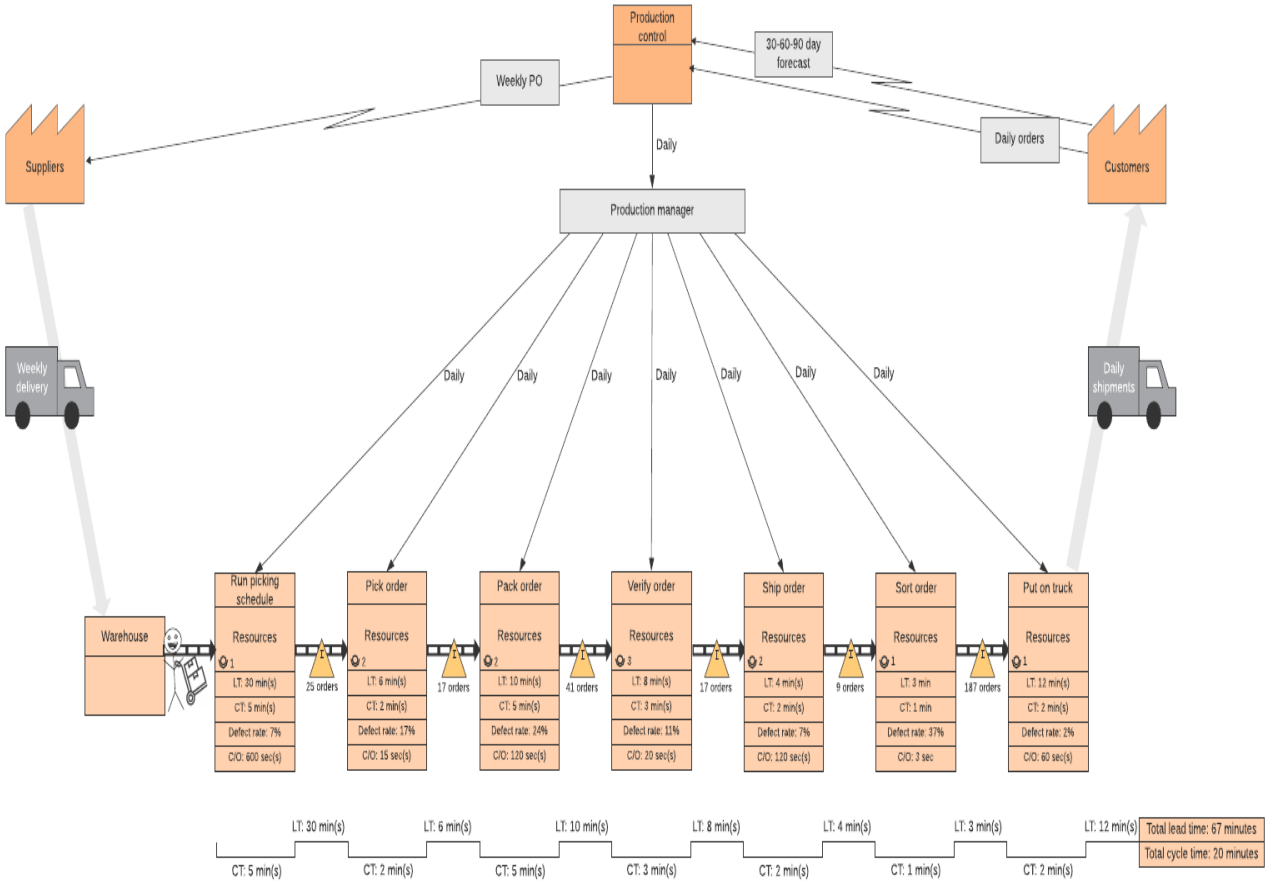
- **Skills:** the act of underutilizing the knowledge and skills employees have

Process engineers identify these areas of waste to increase overall value to customers.

Diagrams for Lean Manufacturing

Note that there is a lot of crossover between these various methodologies as far as the diagrams they use to analyze processes. Business process maps, for example, could prove helpful in detecting waste or organizing a plan to eliminate it. Many process engineers, however, use value stream maps as part of Lean manufacturing.

Value stream maps**:** Document all the steps for delivering a product or service, from the start of production to delivery. Layer the process with a timeline measuring value-added activities and non-value added activities, so you can see which activities you should remove from the process.



Lean Six Sigma

Just as the name suggests, Lean Six Sigma is a combination of the previous two methodologies.

Taking a Lean approach to Six Sigma helps you eliminate waste from your organization and reduce process defects. Lean Six Sigma helps you save time, improve quality, and cut costs. It relies on DMAIC and combines the tools from both methodologies, such as value stream maps and SIPOC analysis diagrams.

Total Quality Management (TQM)

Total Quality Management predates Six Sigma and Lean methodologies, gaining a lot of attention in the late 1980s when the US Federal Strategic Alliancebegan using it. Success results from customer satisfaction within this system. As with Six Sigma, TQM can vary from company to company, but organizations using TQM generally follow these principles:

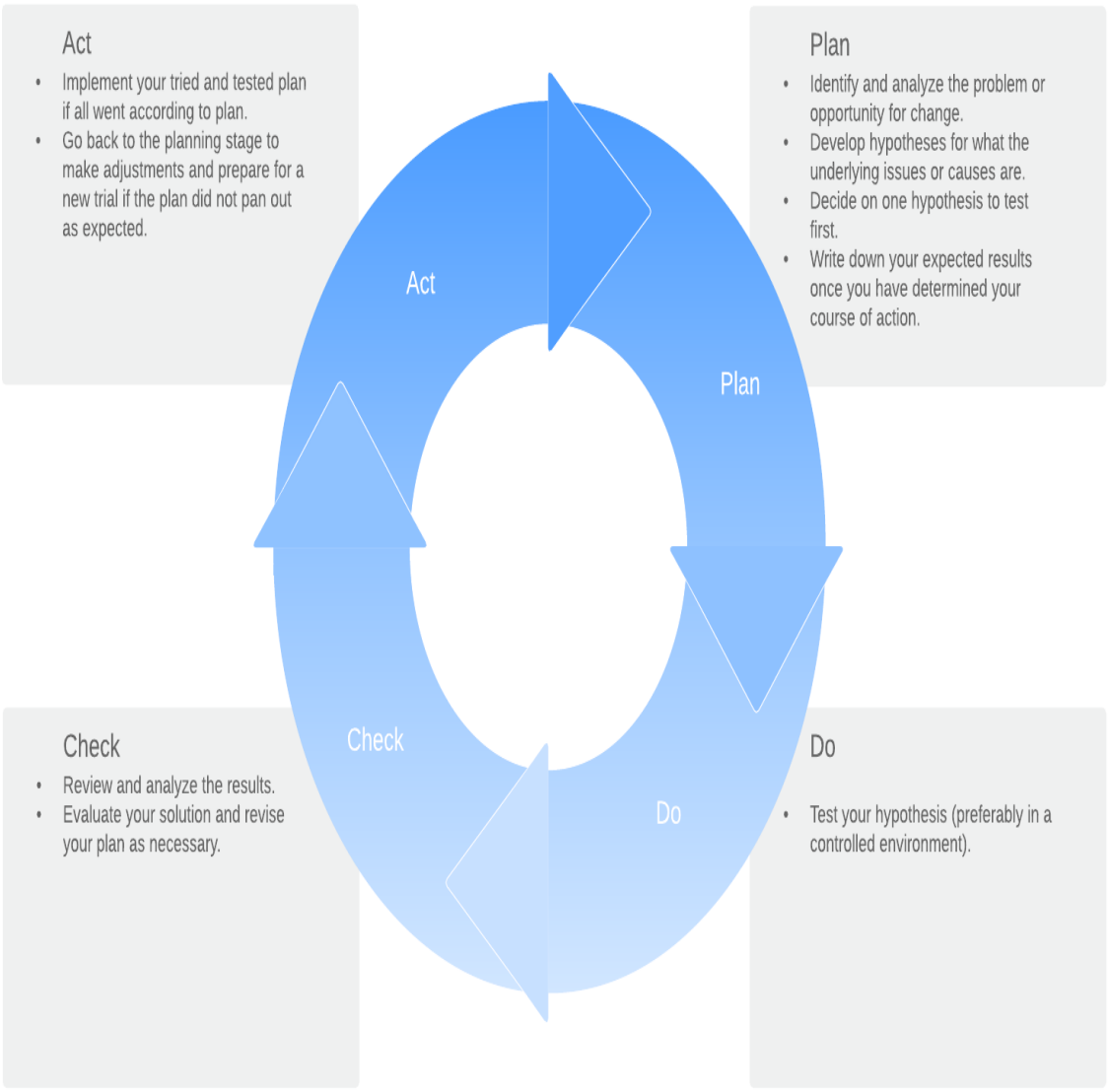
- Organizations should follow a strategic and systematic approach to achieve their goals.
- Customers determine the level of quality.
- All employees work toward common goals. Effective communication and training ensure that everyone understands the definition of quality and strives to achieve it.
- Organizations should define the required steps of any process and monitor performance to detect any deviations. They should continually look for ways to be more effective and more competitive.

Measurements for quality depend on the company, though some use established standards, such as the ISO 9000 series.

Diagrams for TQM

TQM companies have used many different diagrams to troubleshoot quality issues. The original TQM plan instituted by the US Navy used seven tools to measure quality, including the Ishikawa diagrams mentioned earlier, flowcharts, and check sheets. Many companies also use PDCA cycles.

PDCA cycles**:** PDCA (Plan, Do, Check, Act) goes by many names such as the Deming cycle and the control cycle. Businesses use it for continual process improvement, listing out the proposed plan, testing the plan, and checking the plan's success.



Toyota Production System/Just-in-time

Also known as just-in-time, the Toyota Production System (TPS) was developed by Taiichi Ohno in Japan, after World War II, to save time during production and reduce inventory cost.

Using the Kaizen approach of small positive improvements, the basic tenant of TPS is to only produce products when needed, avoiding large inventory stocks.

TPS is typically used by process engineers in tandem with Kanban project management to easily see and track current processes while preventing hidden problems. There are 4 main principles of TPS:

1. Philosophy

Use your organization's long-term philosophy to guide decisions rather than short-term financial goals.

2. Process

Find the right process to produce the right results. This principle may involve:

- Using an ongoing process flow to find problems quickly
- Implementing the "pull" system to prevent overproduction
- Employing visual controls to see the entire process to avoid hidden problems
- Using only reliable technology necessary for your people and processes

3. People and partners

Invest in the people to create leaders that embody that company's philosophy and can teach it to others.

4. Problem-solving

Instill a culture of learning for continuous improvement. Fully understand the problem before determining a solution, and avoid rash decisions. Instead, take time to reach a consensus.

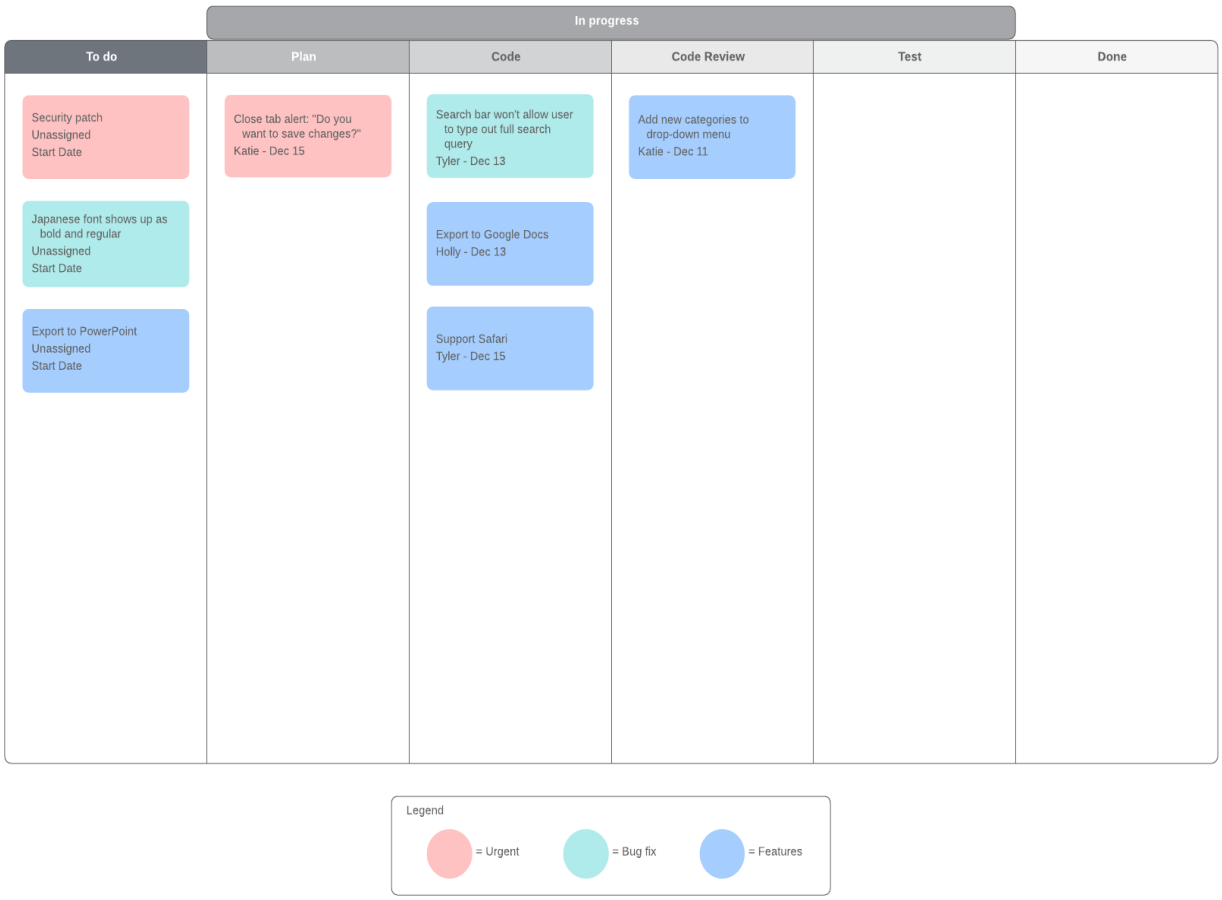
Diagrams for Toyota Production System/Just-in-time

When Toyota first implemented the TPS methodology, they used a visual card-based system to find inefficiencies. Today, there are different tools to help process engineers visualize and manage processes.

A3 report: A one-page report that easily identifies and communicates crucial process information. The report helps workers solve problems quickly guiding continuous improvements.



Kanban board: A visual workflow diagram used to track progress, identify problems, eliminate bottlenecks, and improve efficiencies.



Theory of Constraints

First introduced in the early 1980s by Dr. Eliyahu Goldratt, Theory of Constraints (TOC) identifies the biggest factor and prevents a goal from being achieved and then uses a systematic process to improve the constraint until it is no longer a limitation.

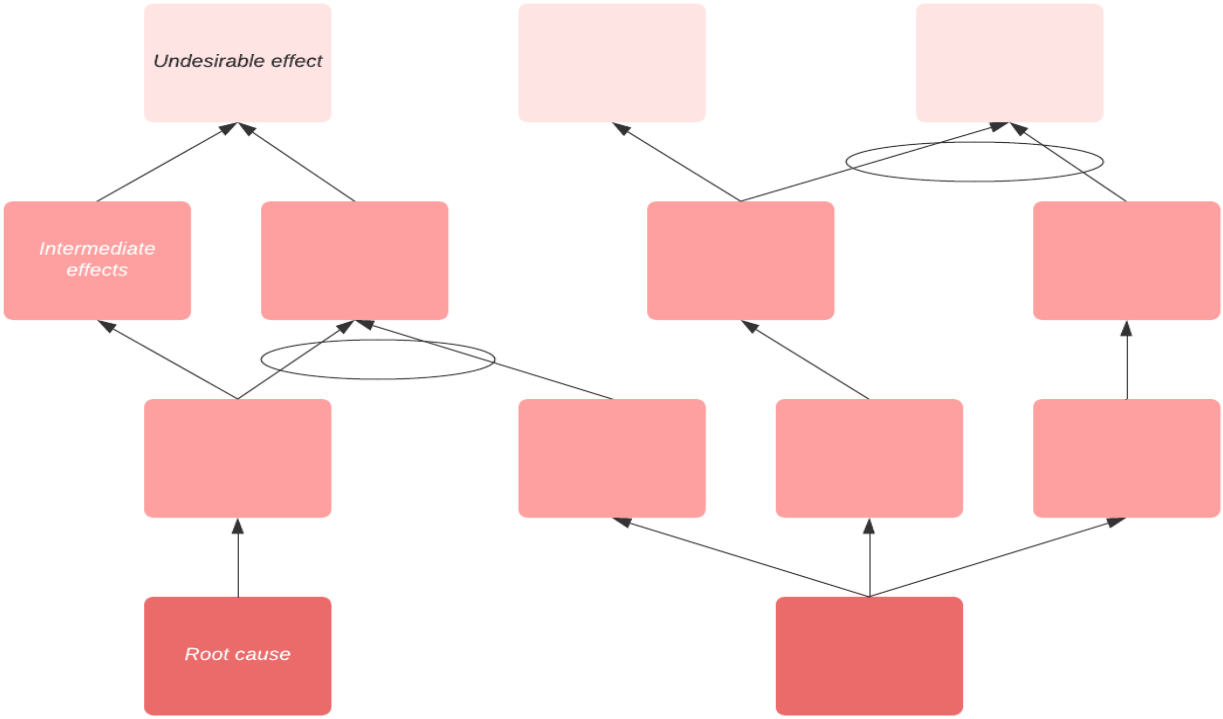
According to TOC, organizations will always face at least one constraint, meaning that there will always besomething to be improved. To use TOC, to remove constraint, use these five repeatable steps:

1. Identify the constraint.
2. Decide how to exploit the constraint.
3. Subordinate and synchronize to the constraint.
4. Alleviate the constraint.
5. Repeat the process as needed.

Diagrams for Theory of Constraints

Diagrams make it simple to visualize and understand what influence a constraint has on other parts of the process and where the constraint can be alleviated. Note that there is a lot of crossover between these various methodologies as far as the diagrams they use to analyze their processes. Many users of TOC tend to use Lean tools and diagrams to monitor processes.

Reality tree diagram: There are future and current reality tree diagrams. Reality tree diagrams are used to analyze and identify problems that hurt organizational processes, determine which is causing the greatest constraint, and begin to alleviate it.



Here it is covered six major process improvement methodologies, but there are many more available, along with a ton of additional practices that correspond with Six Sigma, Lean, and TQM. Dive deeper into any of these methodologies with the resources above.

What is a process and what are the different types of processes?

There are many definitions of a process Lehner et al. (2007), and we will discuss a few of these (see Table 4.1). The selected examples illustrate that each perspective on a process each emphasizes a particular trait or characteristics of a process. As a result of these different views, there is no single definition.

Table 4.1 Definitions of a process

Definition	Source
Repeated tasks that arise in the performance of an assignment in different sectors of an enterprise. They are the recurring results of for an individual task with • measurable input • measurable added value • measurable output	Fischer (1993, 312)
A succession of tasks, activities, and performances for the creation of products or services, which are directly connected with one another and in their sum determines the business management, technical production, technical administration, and financial success of the enterprise	Striening (1988, 57)
A manual, partly automated, or fully automatic business activity, which is performed following definite rules and leads to a particular goal. A business process creates, in this way, a valuable result for the client.	Oberweis (1997)
The content, timing, and natural sequencing of an object necessary to complete a business management function.	Vossen and Becker (1996, 19)

Most of the definitions have in common that there is measurable information and measurable results, a definite beginning (this means that it has a starting occurrence or initiation) and an end, as well as a demand for value or a contribution for the creation of value. The main features of a process are depicted in Figure 4.1. Process management supervises all aspects of a process from the initial event until its completion. It goes beyond departmental or functional barriers, and sometime beyond organizational boundaries, to cover the entire process. Process management is an integrated approach to managing processes.

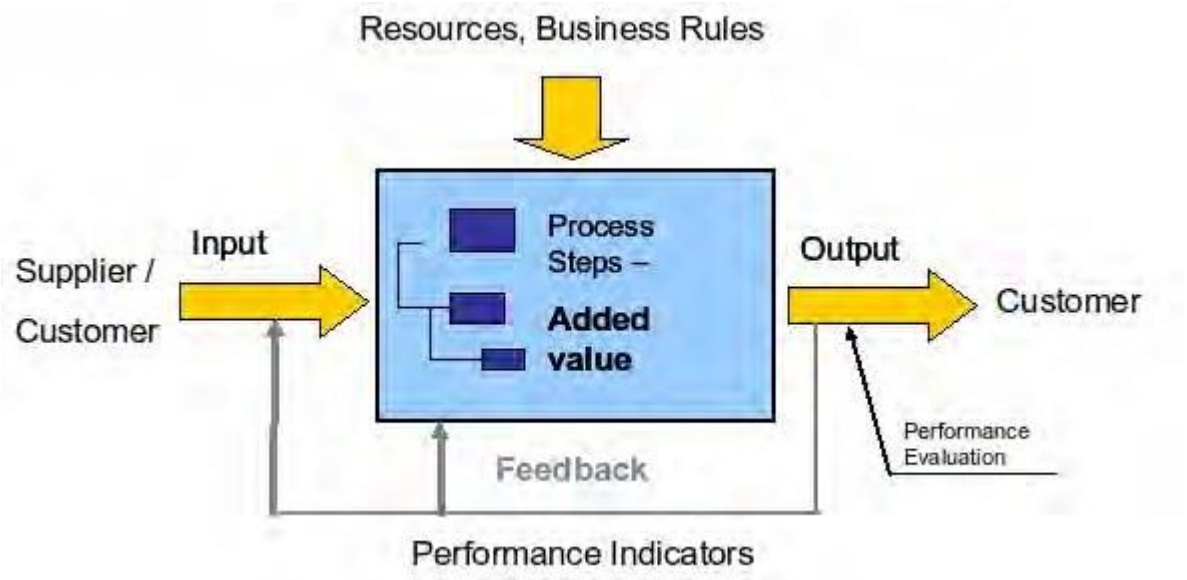


Figure 4.1 The structure of a process (Tonchia and Tramontano)

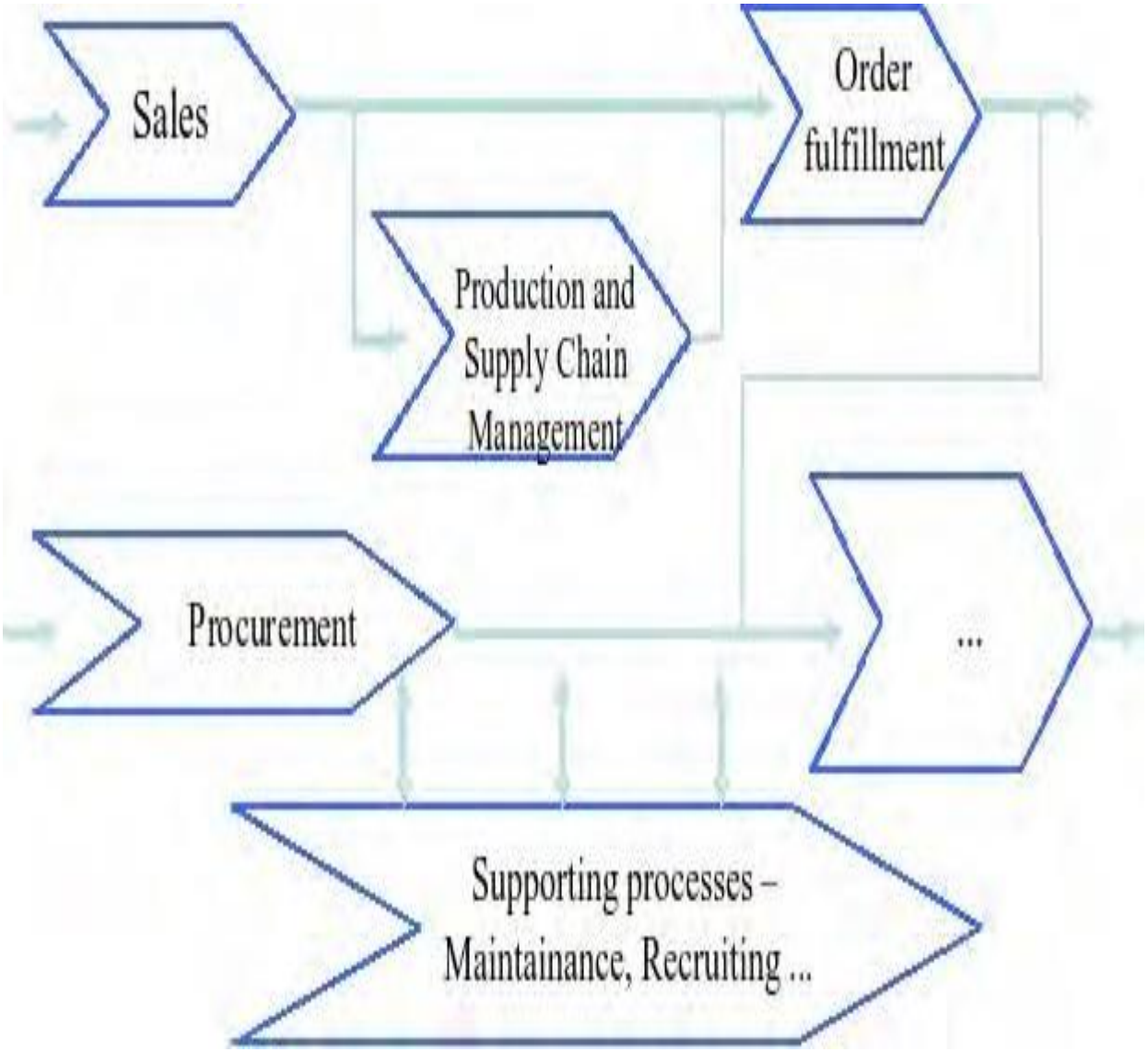


Figure 4.2 Business process examples

The classification of processes is another key aspect of process modeling. One can broadly distinguish between material processes (e.g., procuring, producing, storing and financing) and formal processes (e.g,. planning, controlling and decision-making). Figure 4.6 lists a few examples of processes often found in enterprises.

A further distinction is whether a process is a main, service or support, and management and leadership process. The main processes are those that directly create value for an external client. They can be product-related (e.g., production, R&D) or client-related processes (e.g., order completion, distribution, acquisition). Main processes are sometimes also called core processes, because they are central to the strategic goals of the business. They are the means by which the business creates value. Service processes deliver value to internal clients and

support other processes. (e.g., personal recruiting, maintenance, quality, and security). Management and leadership processes act upon main processes. Planning, accounting, and budgeting fit into this category.

Processes can be further subdivided into strong or weak structured processes. Strong structured processes are frequently repeated, structured data, and well documented. They are the day-to-day transactions of an organization. They are well suited to conversion to electronic workflow and document management systems. Weak structured processes are, on the contrary, characterized by low predictability and infrequent repetition and unstructured data. One uses groupware and communication systems to support weak structured processes.

Process orientation as a prerequisite for process management

All over the world, one can observe an economic and societal restructuring. A dynamic business environment and the pressure for firms to increase their competency is forcing enterprise to develop new abilities. Typically, firms adapt to a new environment by following a learning-process to gain efficiency and flexibility. To increase their competitiveness, many enterprises reorganize their systems and structures. They apply one of the many “salvation plans”, such as “Business Process Reengineering”,” Business Process Design”, “Business Process Optimizing”, Work Flow Management”, “Business Modeling” or “Business Process Oriented Organizational Set-up”, just to name of few of them. The choice of methods is good, however careful examination of each of these methods reveals that they all are based on the same central foundation. The focus is on identifying business processes and modeling them. They have a common process orientation

Process orientation is booming in information systems, and has also become an important basic component in many organizations. Indeed, process thinking has a long tradition in business administration. The innovation in process orientation is in the expanded context and in the use of computer software. Business processes can be analyzed in their entirety throughout the organization, and this analysis is shaped and steered with the support of process modeling

software. Process models document the business processes and support their systematic analysis. As a result of this analysis, some processes can be implemented electronically using specialized software, variously know as Work Processing Systems, Workflow Management Systems, and Business Engineering Tools .

Process orientation, as it is understood today, is strongly connected with strategic thinking and organizational development (OD). Porter's value chain, probably the most well known of the general process models, is a highly useful tool for strategic thinking.

Process orientation gained considerable additional attention with the rise of the Business Process Reengineering (BPR). The work on BPR of a few American authors (e.g. Hammer and Champy 1993, Davenport and Short 1990, Davenport 1993) started a worldwide trend, moved the discussion of processes in to the center of much organizational thinking about efficiency. Organization sought to use BPR to achieve reduce the complexity of internal operations and more efficiently achieve organizational goals.

To achieve the promise of BPR of simplifying organizational processes, it is of crucial to have an exact and thorough modeling of the targeted business processes. Process modeling is a methodology that explicitly or implicitly helps an enterprise

- understand the nature of its various processes (business processes, service processes etc.)
- recognize the resources necessary for the execution of each process
- rearrange the system of processes and resources (i.e. process orientation)
- to permanently improve processes.

In general, an improvement in process can be reached through simplifying and standardizing the elements of a process and their relationship to each other. Through an automation of a chain

of activity, for example, through new technology and information systems, the efficiency of the processes can often be increased. Also it is often possible to achieve efficiency gains by restructuring single parts of an enterprise. For example, by changing the order of the activities of an internal process or the sequencing of the procedures of a process.

The traditional organization is orientated around functions, hierarchies, competencies, departments, capacities and so forth. This leads in times of market change and competition to a critical disadvantage due to inflexibility, slow adaptation, and a loss of customer focus. Process orientation is a solution to these problems because it pays attention to products, value chains, and process connections. The goal is to ensure the processes are performed efficiently and effectively irrespective of organizational boundaries.

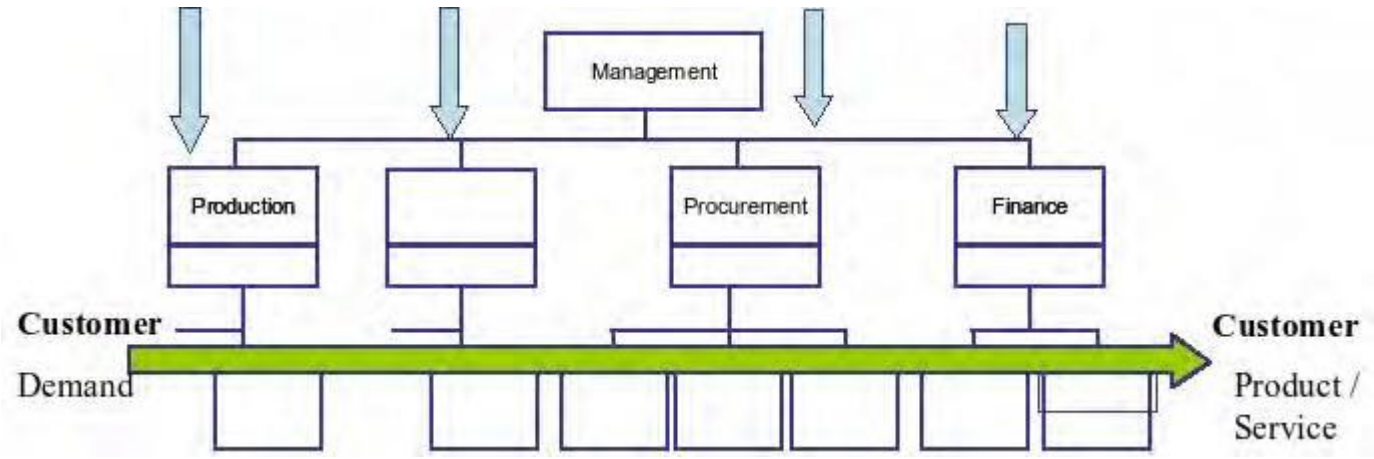


Figure 4.3 Process-oriented enterprise

Process orientation is a philosophy of business, it is more than a methodology, and it implies no accepted actions of a single or connected system. However, methods and concepts have been developed, founded on process orientations, that have been widely adopted. As well as BPR, other names for this philosophy of business include Lean Management, Total Quality Management (TQM), and Process Cost Calculation. In the classical hierarchical organization, process management performs operates in parallel and complements the functional structure. A fundamental alteration of the organization's structure is not necessary. Finally, it is important to point out that process orientation should co-exist with other management approaches and management science applications.

What is business process modeling and what is it good for?

A purely verbal description of the sequencing of tasks is not suitable for describing a process because of the level of detail and interaction that must be captured. Graphical methods are clearer for showing the ordering of activities, identifying those that occur in parallel and detailing a task's resource requirements. Graphs are easier to read and convey the overall nature of a process.

Process modeling is a method for enabling an enterprise to document its processes and to recognize the resources required by each process. and to depict or to document them, that is to model them, as activities, events and resources. There is no generally accepted standard for process modeling and it is strongly influenced by the capabilities of the selected tool. In addition,

process modeling, most of the time, takes place as part of a larger project (e.g., business process reengineering or introducing a workflow system). The higher goals or the larger project usually strongly influence the approach to process modeling.

In practice, organizational problems often trigger process modeling (e.g., a decrease in turnover, a loss of market share, a decrease of the quality of work). It often takes place as a reaction to a critical concern. Because process modeling is time consuming, Ideally, it should

be take undertaken without undue pressure for rapid change. Seeking to use process modeling as a quick fix to a critical problem is unlikely to lead to the best outcome because it encourages short cuts in modeling and analysis that are detrimental to a high quality solution.

There are two major approaches of process modeling. The first kind assumes the existing processes must be understood before taking action (e.g., Bevilaqua and Thornhill 1992). The second approach starts with the results that this process should accomplish. It argues that analyzing existing processes will not produce radical change. Hammer and Champy's BPR represents the second school. In reality, a synthesis of these two extremes would likely be most useful.

We now examine Nagl's (1993) four steps for the general order of procedures in process modeling:

- Understand existing processes, their resource requirements, strengths and weakness, and identify any risk factors
- Define planned processes and describe the current functional processes;
- Determine of the planned use of resources (future state) considering the critical success factors;

- Identify the stages of implementation (actual or current state), including describing the system of resources, use of process as well as the measures taken in different functional areas.

The resulting process model should, among other things, do the following:

- Identify and define processes;
- Support process analysis and make needs for improvement visible;
- Document the change in the order of a process as well as recognizing the effects of such changes.

As already stated, business process modeling is concerned with the portrayal and description of all relevant aspects of a business process in an abstract model with the help of a formal or semi-formal language of description. At the same time, it actively supports the development of the new processes and reorganization of the business. Its goal is to improve organizational efficiency and competitiveness. Process modeling supports these goals in diverse ways, including:

- Documentation: Business process modeling provides a simplified, but at the same time exact, description of the enterprise. All the elements and sections are described as well as their

relationships and connections with one another. It provides the means to analyze emerging problems and to analyze their effects within the process or other related processes.

- Organizational analysis and reorganization: The sequencing of each process is analyzed in the course of the process modeling making possible to identify needless or awkward parts of the organization. As a result, parts of the process can be changed and organizational roles modified. As well, redundant tasks can be eliminated.
- Planning the use of resources: Because a process model provides an overall view of the enterprise and the exact knowledge of the way that the process functions, it is possible to determine the exact resource requirements of individual organizational units. Available resources can then be better planned and allocated. In addition, possible bottlenecks can be highlighted, so that the enterprise can react appropriately to relieve them.

- Process management, monitoring, and directing the course of a process: A process model delivers a business' leadership with an exact picture of the different trends and courses in the business. Input and output, distribution of resources, and the relationship between and in the individual elements of the enterprise are represented. Thus, more precise control of the course of business is possible. The organization should be more able to react in a timely manner to unexpected events.
- System and software development: A business process model gives management and analysts the opportunity to simulate proposed new processes before implementation. As a result, problems, possible improvements, and unanticipated outcomes are more likely to be recognized before implementation. It is cheaper and less disruptive to simulate change before making a final decision on the form of a new process.

- Creating a foundation for the establishment of a workflow management system: After successful business modeling, installing a workflow management is a possibility. A workflow

system completely defines, manages and executes workflow processes through the execution of software whose order of execution is driven by a software representation of the workflow's process logic. Such systems are frequently used for document management.

The optimization of an organization is only possible if processes are modeled accurately, since only then exact knowledge of possible improvements or problems is available. Many different elements can play a part in a process, and the more aspects that are recorded, the more exact will be the process model. Each organization needs to determine the appropriate detail for its process model to meet organizational goals.

According to the requirements of the respective organization, the following information needs may be relevant:

- Activities and structure of the process: This point is essential for modeling, it determines the purpose and structure of the process. It describes what happens and how it is to happen.
- Resources: This aspect has to do with the available internal as well as the inflowing external resources of a process. It defines what material is necessary for the correct sequencing of the process and the source of these resources. Data that are essential for the progress of the process are defined.
- Costs: An organization has a limited budget, and thus it is essential to have an exact list of the different tasks.Process Modeling can record the cost clearly for each individual process, recognizing where a redistribution or a change of budget is necessary or possible.

- Time: As with the cost, time also plays an important role in the schedule of a business. Through including time in process modeling, processes that last too long or create bottlenecks can be recognized and additional resources can be deployed to solve these timing issues.
- Exceptional incidents: The normal process is often the practice, through unusual events (e.g., lack of resources, short notice of deadlines changes) disturb process completion. Such disturbances need to be considered when modeling to ensure the process is fulfilled.
- Priority and role in the organizational structure: Each process has a definite status in the enterprise. Decision-making can be streamlined by the identification of organizational priorities. For example, if there is a shortage of resources, the decision as to where scarce materials should be delivered first is automatics because it is defined with the businesses processes.

- Communication structures: This item describes the internal communications structure of a process as well as its corresponding relationship to other units of the enterprise. For example, it describes what messages are exchanged between processes.
- Quality requirements: Quality requirements are included in process modeling to ensure customers' needs are met at the right standard. As well as defined quality requirements for output, quality standards for the process and specific dependencies are also recorded.
- Security requirements: With some processes, security factors have to be considered. For example, it might be important to prevent unauthorized access to internal data or minimize the risk of an accident in a manual process.

The preceding list is not necessarily complete. It shows that processes are very complex and that the information needs for process modeling are dependent on the purpose of the model.

Process modeling can serve multiple needs. The most important among them being:

- Communication with co-workers and partners
- Establishing a basis for understanding a process and analyzing it
- Planning of work processes and exceptional situations
- Implementation of a Workflow systems
- Training people to use organizational processes
- Input for software development
- A foundation of expertise for information management

For the systematic description of processes, several different notation formats are available. They vary from informal descriptive techniques (e.g., verbal or text based descriptions,

flowcharts), to semi-formal techniques (e.g. ePK-diagrams, BPMN-diagrams, and UML-diagrams), to formal methodologies (e.g., Petri nets). Formal methods are based upon a theoretical foundation, usually based on diagram theory. It is helpful to use a common standard to make communication with others easier.

BPMN (Business Process Modeling Notation) <www.bpmn.org/> is an open standard for modeling, implementing, and performing business processes. It is similar in its notation to the activity diagram of UML (Unified Modeling Language), which is widely used in the software industry. An activity diagram can be complemented with an application or sequence diagram.

ePK (event controlled chain of process) diagrams are also widely used, and appear in ARIS platform and SAP software. Business processes are portrayed as chains of activities that can be connected through events.

Process description languages are typically strongly structured, often tabular or graphically oriented. They often use diagrams or structured language to capture detail. As a result, they are more suited for describing processes than everyday language.

Modeling with ePK

A major advantage of ePK-diagrams is that they are easy to read and are intuitively understood. An important disadvantage is in the limited ability for automatic analysis. A sample ePK diagram is shown in Figure 4.4 As a core element of ARIS, ePK diagrams will be treated when we cover tools for process modeling.

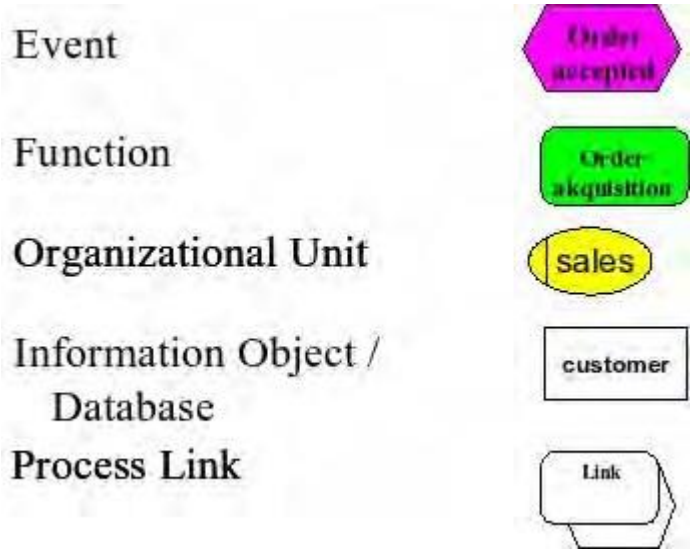


Figure 4.4 Example elements of an ePK diagram

We can describe the business processes within an organization in terms of events and function. Examples of events include an incoming order and sending out of invoice. The total of all possible events in an organization and its environment is defined as the organization's event scope. Functions include or describe a business management chain of activity (e.g. examination of creditworthiness). A function is a time consuming occurrence, which is triggered through a starting event and is completed by an ending event. Sometimes a function

is also called a chain of activity, occupation, or operation. Functions can also be broken down or aggregated. Informational object describes the data that are processed by a function (e.g., a customer's record). Connectors describe the different forms of process branching (see Figure 4.5). In Figure 4.3, we see an example of an ePK diagram.



AND all paths (conjunction)



Inclusive OR at least on path (adjunction)

xor Exclusive OR either – or (disjuction) (switch)

Figure 4.5 Connectors

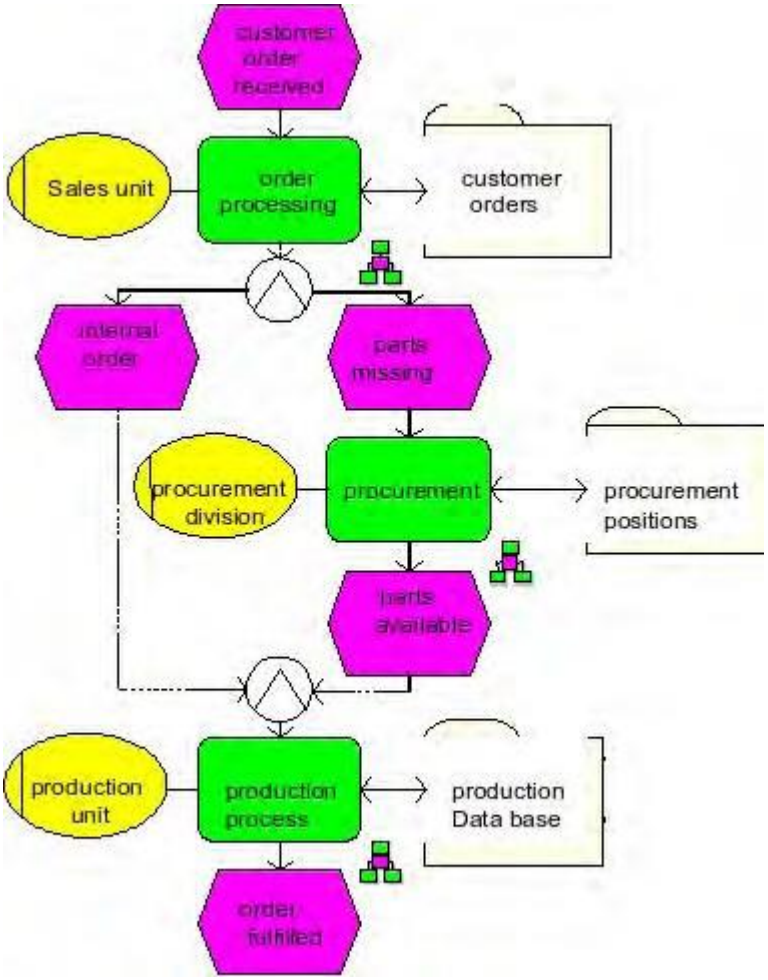


Figure 4.6 an ePK diagram

Functions and events create an event controlled chain of process, with arrows showing the flow of the process. An incoming event initiates a function and a function when completed, in turn, initiates another event. Connectors can be used to combine parts of a chain. Complex chains can be broken down into layers, with high level layers showing the overall flow and lower layers recording the fine details. There are some common conventions for process modelling, including:

- Events (e.g., parts missing) initiate functions (procurement)
- Parallel of functions should be modeled with logical operators
- A process model should flwo from the top to the bottom
- Clear and understandable terms should be used for functions and events.
- An organizational unit responsible for the execution of each function should be identified.

Software for process modeling and process support

The planning, realization, supervision, and control of processes can supported by software. The spectrum of software support includes simple modeling tools to Workflow Systems, Document

Management Systems, EAI-tools (Enterprise Application Integration), Business Rules Engine (which can automatically perform certain defined processes). The supply and demand for process technology is still growing strongly. We discuss a few tools that are mainly used for process modeling and process analysis.

Process modeling software is often similar to CASE-tools (Computer Aided Software Engineering), which were originally created for software design and software development. CASE tools provide some support for process modeling.

Workflow management describes another group of tools, which are well-suited for chain of activity modeling. The tools are frequently used to support group work and are sometimes called groupware. The tools were designed to support office automation, office communication, and office organizational systems, and their development started in the 1980s.

Tools support the systematic definition, storage and analysis of data collected during process analysis and process modelling. In large projects, they are especially useful in coping with handling volumes of data. They promote process understanding and process thinking. However, they don't automatically indicate how to improve a process, that is something for humans to undertake.

A process modeling tool needs to support different views of a process (e.g., understanding a process across functions or departments).Tools should also be able to show processes at different levels of detail and integration. The goal is to have an Enterprise or Information Model. An enterprise model supports definition of:

- Functions
- Data objects, documents, and data flows
- Processes
- Organizational structures (organizational units and organizational set-up, employment structures).
- Resources and other process features (e.g., cost, resource consumption, length of a run, frequency, volume etc.),
- Process responsibility (e.g., process owner)
- Process results
- Process triggers (events)

An enterprise model creates the possibility of a range of views of the organization to suit different purposes (e.g., strategic planning or process improvement). Most process modeling

tools offer the breadth of functionality to support development of an enterprise model. The centre of a process modeling tool is a description language, which must fulfil certain requirements for it to be useful. The most important features include:

- Power of expression: A language must be capable of representing all relevant aspects of a process. It must capture all properties and relationships.
- Formalization and degree of precision: A description language must be flexible to adapt use to a particular project's goals. If the language is not flexible enough, it loses power of expression and might be unsuitable for some modeling tasks.

- Visualization: A modeling language should support multiple organizational views, so that all aspects of the various processes are represented. A graphical representation is very helpful, as one loses the general idea very easily with a plain text description of a system. The ability to change the level of detail in a process model is also useful. One should be able to fade out irrelevant facts for a closer inspection of fine detail of a process or summarize different processes to gain a high level perspective of a process.
- Development support: A process modeling tool, ideally, should also support software development as software is often written to automate processes.
- Analysis and validation: In most cases process modeling is enable analysis of internal processes and to represent different feasible process structures and sequences. The modeling language must support precise representation of existing and proposed processes and validation for the testing of redesigned processes.

- Performance simulation: An analysis of organizational processes often identifies possible improvements in the structure and working of processes. To ensure that the potential changes result in process improvement, it is necessary to test them before implementation. Process simulation is a way of testing a change before making a costly commitment to an organizational process change. Implementation without testing or simulation can have costly consequences if the new process is flawed.

The usefulness of a modeling tool is also determined by other factors beyond the capability to meet the preceding requirements. A tool must also be easy to use and support the interaction of the team working on the project.

Process models must be constantly updated to reflect organizational change if they are to remain of value. Only the employees that carry out a process, will know if the process has changed or its requirements modified. Ideally, model maintenance is undertaken by employees and not of the modeling specialists. Consequently, pocess modeling tools should be readily used by employees. Of course, they might need some appropriate training, but this should not be extensive because they are likely to be infrequent users of the tool.

Process analysis and the benchmarking of processes

Generally, a process improvement can be reached by simplifying and standardizing the process and its relationships. Automation of an activity chain (e.g., new technology and an information system) can lead to rapid performance increases. Also, restructuring parts of a process (e.g., a change in the internal sequencing of a process) can increase the reduce costs and the time for process execution. Some potential changes include:

- Automation (e.g., cessation of manual activity)
- Information level (e.g., better reporting on the stages of process execution)
- Process sequence (e.g., changes in the order of a process' steps and elimination of unnecessary steps)
- Control (e.g., improved monitoring of a process at key steps)
- Decision support (e.g., improving the information supplied to decision makers typically results in higher decision quality)
- Regional co-operation (e.g., better coordination among different locations)
- Coordination (e.g., better coordination between individual tasks and also between two or more processes)
- Organizational learning (e.g., collecting and transmitting strategically important information to key managers)

Time, cost, and quality play an important role in process improvement. Thus, the individual process objects and activities must be examined to record their duration, quality, and content. The capacity, the consumption, the results, and responsibility of individual processes must also be determined. A variety of data might be collected, including production time, punctuality in meeting deadlines, work capacity, processing time, waiting time, and transport time, post processing time, and error rates. Careful and detailed process modeling lays the foundation analysis and redesign. There are a number of process assessment approaches including:

- Net value analysis
- Cost calculation
- Benchmarking
- Profit value analysis

- Controlling
- Portfolio analysis
- Strengths, weaknesses, opportunities and threats (SWOT) analysis
- Process simulation
- Total Quality Management
- Six Sigma

Benchmarking requires comparison of current process time, cost, and quality with earlier outputs of the organization or with a similar organizations in the same sector and of comparable size. It should methodically evaluate processes and products with their equivalent in the comparison organization. Benchmarking should identify target time, cost, and quality metrics for process redesign based on the best practices of the benchmarked organizations. The central question is “Why and how are others performing better?”

Often benchmarking projects are carried out with the assistance of a consulting service, which collects and evaluates the necessary data of a group of similar organizations. Participants gain access to their performance data and a comparative analysis of their performance relative to the group average and to the anonymous best or worst results of the group.

Profit value analysis is used to compare alternative processes with respect to established goals.The analysis is organized into six steps:

1. Identify the criteria for assessment (e.g., short production time, high quality, low cost)
2. Determine the weight of each goal (e.g., 25%, 25%, 50%)
3. Assess the alternatives and give each a score for each criterion
4. Calculate the profit value by applying the weights to each score and summing these
5. Complete a sensitivity analysis of the profit value to determine how sensitive the findings are to key assumptions
6. Rank the alternatives.

Profit value analysis takes into account the importance of different goals. However, the evaluation of each alternative is often subjective because objective measures for each criterion are often lacking. In addition, there is a certain amount of subjectivity in selecting weights.

The purpose of Cost Calculation is to investigate process costs beyond an organization's boundaries so that the full cost of a product to customers can be determined. Process cost calculation started in the 1980s. Because of a changing business environment, it was necessary to depart from the traditional method. Overhead costs were increasing because of several factors, including manufacturing flexibility, shortened product life cycles, a wider range of products, and variations within products. The goal is to make the cost structure transparent as this often leads to considerable process rationalization and savings. Cost calculation can highlight overheads that are too high and common processes that increase the cost of many other processes.

Process cost calculation is not an alternative to traditional cost accounting calculations. They are complementary. Process cost calculation process tries to compensate for some of the shortcomings of the traditional cost calculation system in regards to the basic causes of organizational overheads. Increasing cost transparency should lead to more efficient resource

consumption, report accurately the use of capacity, and improve the product cost calculations. The goal is to improve the quality of decision making related to new product introductions and pricing policies.

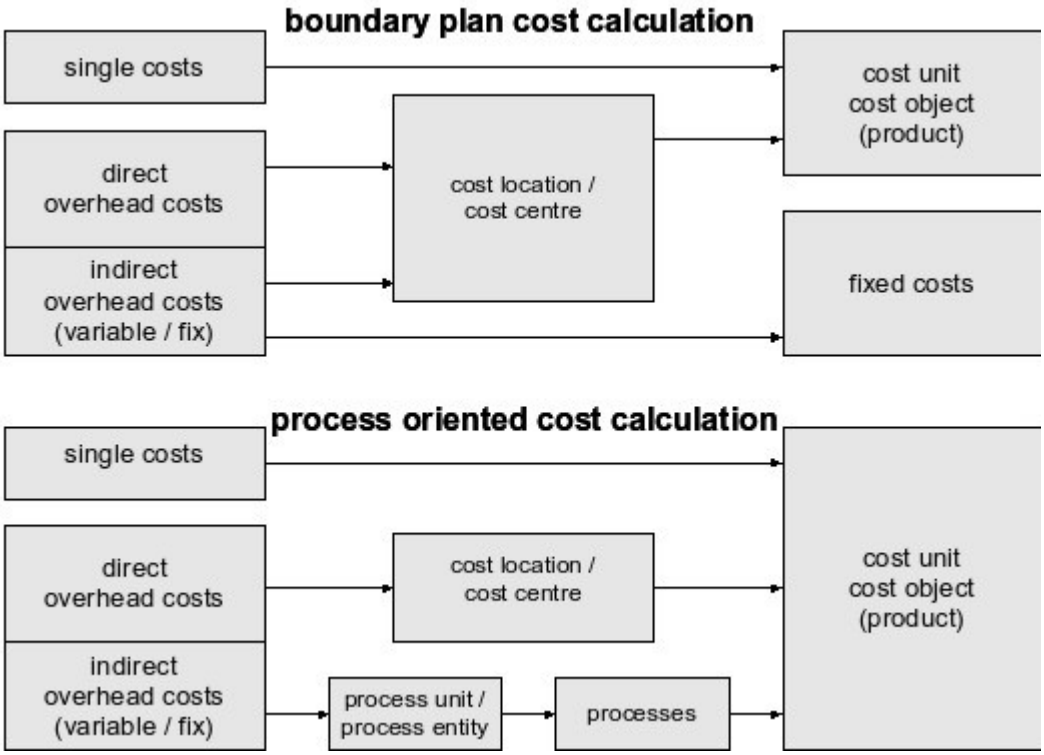


Figure 4.7 Boundary plan cost calculation compared to process oriented cost calculation

Process cost calculation should document the cost drivers for each process. These cost drivers can be related to quality, time and efficiency goals that have an impact on organizational costs. Reducing cost drivers can decrease costs and improvement competitiveness. It might not be economical to undertake a complete cost analysis of all tasks, so process cost analysis should

concentrate on those areas that are the main financial stress of the business. It should also focus on those areas for which no analysis of the basic cause of overheads has been completed.

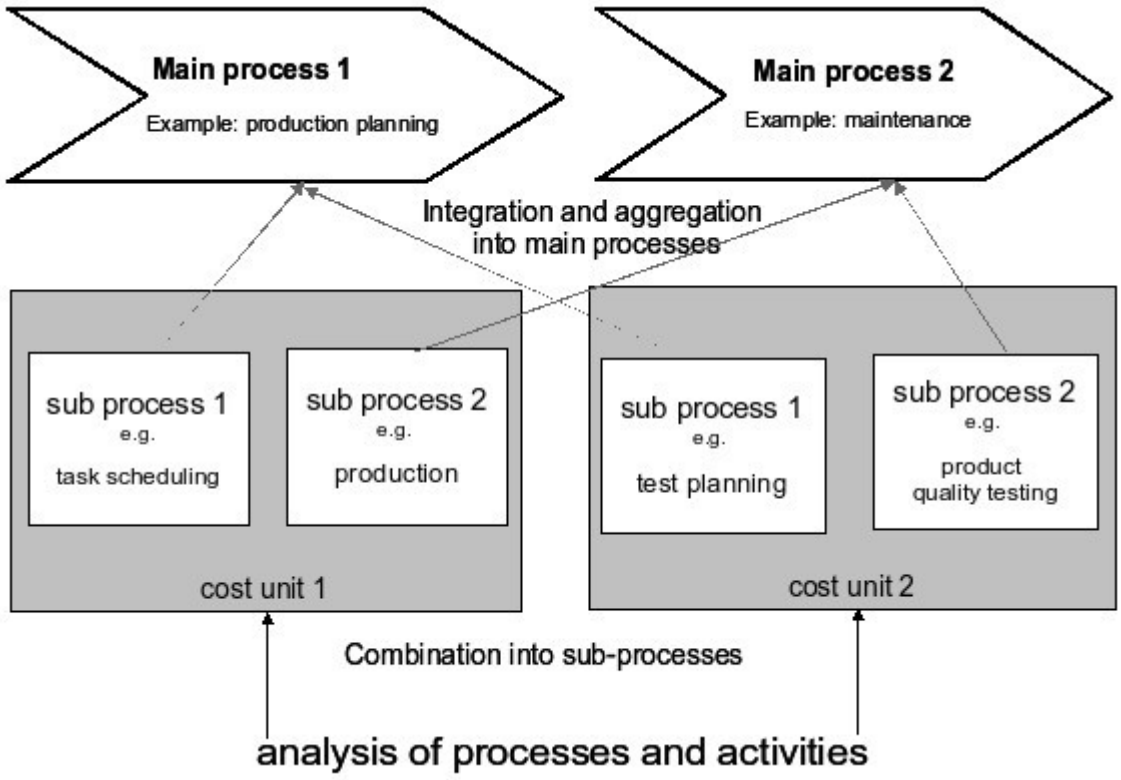


Figure 4.8 Process cost calculation (based on Horváth)

Process cost calculation makes no judgment about the value of a process and only considers the cost side. Therefore, it should be combined with qualitative procedures. For example, a particular process might have a considerable impact on an organization's reputation and this impact would need to be considered when reviewing the overall value of the process related to its costs.

A roadmap to process management

Process management should be an enduring element of an enterprise. Organizations need to continually evaluate about both their larger goals and the fine details of the steps that they take to achieve those goals. Process management provides support across this broad spectrum, as illustrated by Figure 3.8. Process management has become a basic requirement for nearly all organizations because it provides a methodical and systematic set of procedures for continuous improvement. It charts the roadmap to the future for most organizations.

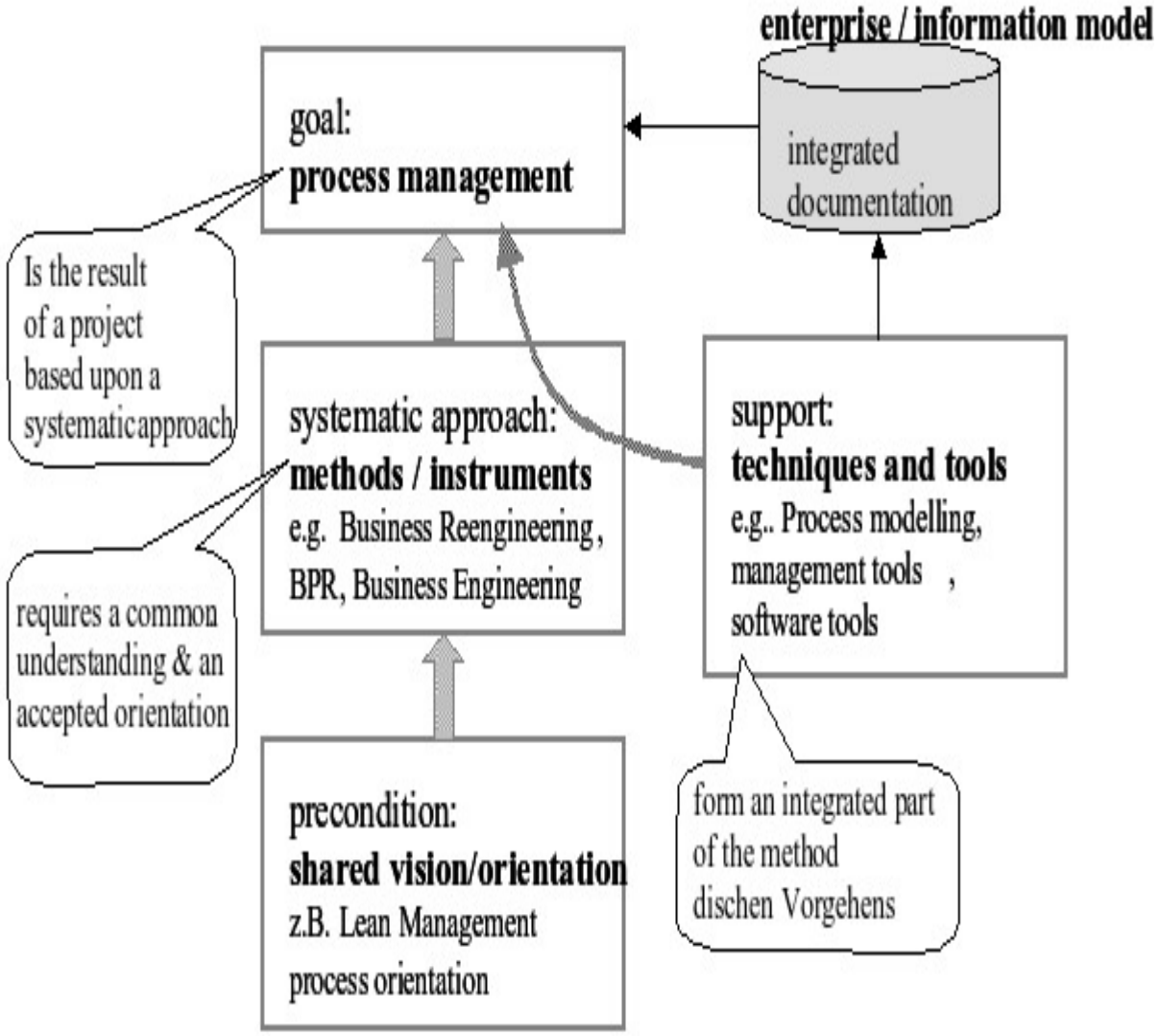


Figure 4.9 Steps in process management

In order for process management to be successful, there must be a person responsible for this task within the organization. Typically, the appointee is called a process manager. In addition, there can be process owners for key organizational processes. Process management occurs in parallel with the traditional functional structure of an organization. Thus, there is no need for a

fundamental structural change, but there is a need to introduce new roles and recognize that management of a process often must span functional boundaries because processes span these boundaries.

Process management must support an organization's strategic success factors. Successful process management can create a competitive advantage and provide administrative efficiencies. It can also increase an enterprises innovativeness when applied to areas such as research and development.

In general, the success of process management is dependent on the skill of the process analysts, who must be supported by appropriate tools for modelling and analysis. Successful automation of processes is reliant upon a number of systems, such as a workflow system, a process management system, or the quality of the information system in which the processes are embedded.

A five stage model can be applied for introducing business process management (Kleinsorge, 1994). The stages are completed sequentially.

1. Preliminary study: Those responsible for making the change are identified. A process manager is nominated for each process. The extent of the project should also be established at this stage as it might not be sensible to model all processes in an entire enterprise in one project.

2. Process modeling and documentation: All the elements (clients/customer, customer request, output, supplier, request to the suppliers, input, work capacity, etc.) of each process are recorded in a process model. This work is directed by the appropriate process manager. As well, the span and limits of these processes is documented.
3. Measuring achievement: Only a measurable process is controllable, so appropriate metrics must be determined for each process. These metrics should be highly objective and easily measured. Once the metrics have been defined, they should be measured for each process.
4. Active steering: Active steering (or controlling of a process) means that a process is managed to ensure high customer satisfaction, deviation from the predetermined goals is minimized, and problems are identified quickly and corrective action taken immediately. A sound measurement system will help in recognizing problems promptly and provide data for their rapid resolution. Active steering will increase customer satisfaction and efficiency and lower costs.
5. Continuous process improvement: Technological change and a dynamic business environment create the need for continuous process improvement. Organizations should strive to continually raise the quality of processes by reducing errors and required resources for execution. Errors in products and processes should not be tolerated and processes should be monitored constantly to identify opportunities for further improvement and lowering of costs.

Process management started with the Japanese concept of Lean Management, and now we have a wealth of approaches to process management. Organizations are increasingly combing process management and information systems to increase their efficiency and effectiveness. They realize that they need to redesign their processes first before automating them if they are to gain the greatest benefit from information systems.

Firms adopting process orientation can transform in many ways, including positive changes in:

- consumer orientation
- competence orientation
- concentration on creating added value
- effectiveness and efficiency,
- delegation of responsibility and empowerment
- support for organizational learning.

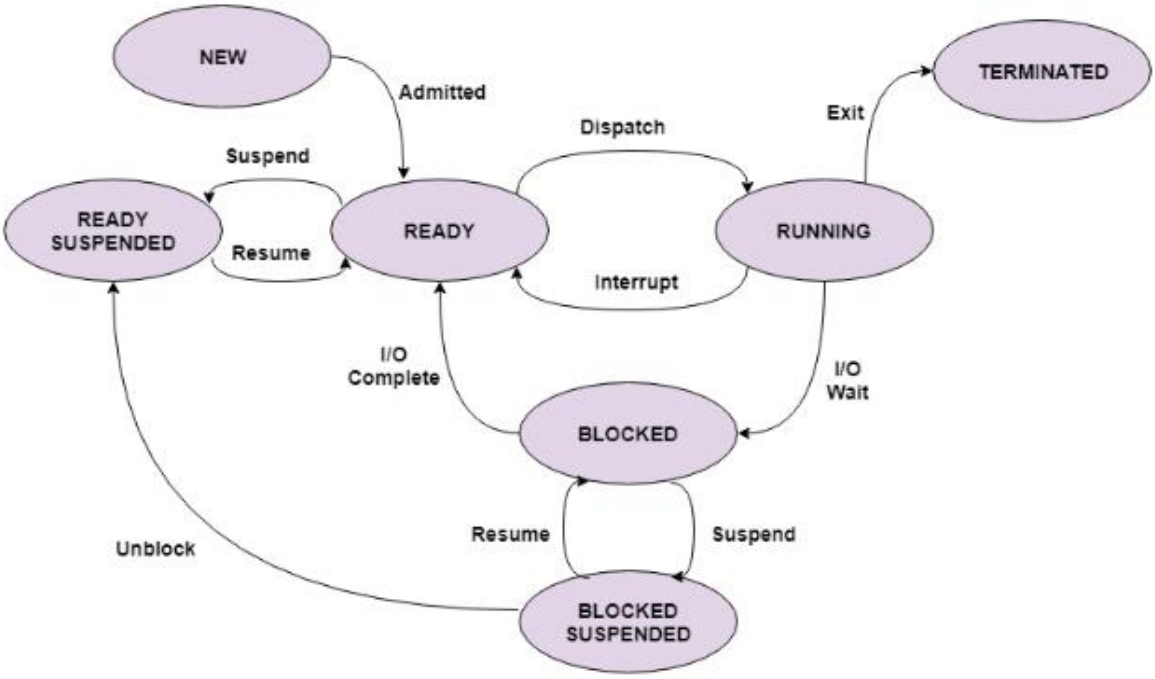
Business process management has become a core competency for many organizations and is thus closely related to strategic management. In addition, there is a strong linkage between

information systems and process management. On the one hand, information is needed for the performance of processes, and on the other hand, new information is created by processes. Once again, we see evidence of the critical role of information systems in organizational success. Indeed, in today's information intensive economy, process management and information systems are critical partners in organizational success.

What are the different states of a Process?

A process is an active program. It can also be said as a program that is under execution. It is more than the program code as it includes the program counter, process stack, registers, program code etc. Compared to this, the program code is only the text section.

A process passes through different states as it executes. These states may be different in different operating systems. However, the common process states are explained below with the help of a diagram:



New

This is the state when the process has just been created. It is the initial state in the process life cycle.

Ready

In the ready state, the process is waiting to be assigned the processor by the short term scheduler, so it can run. This state is immediately after the new state for the process.

Ready Suspended

The processes in ready suspended state are in secondary memory. They were initially in the ready state in main memory but lack of memory forced them to be suspended and gets placed in the secondary memory.

Running

The process is said to be in running state when the process instructions are being executed by the processor. This is done once the process is assigned to the processor using the short-term scheduler.

Blocked

The process is in blocked state if it is waiting for some event to occur. This event may be I/O as the I/O events are executed in the main memory and don't require the processor. After the event is complete, the process again goes to ready state.

Blocked Suspended

This is similar to ready suspended. The processes in blocked suspended state are in secondary memory. They were initially in the blocked state in main memory waiting for some event but

lack of memory forced them to be suspended and gets placed in the secondary memory. A process may go from blocked suspended to ready suspended if its work is done.

Terminated

The process is terminated once it finishes its execution. In the terminated state, the process is removed from main memory and its process control block is also deleted.

Types of Business Industries

Every business is classified into different industries based on the products they make and the markets they cater to. These industries are classified on their specialties which are based on goods and services they provide. While there are companies which belong to only one industry and provide industry-specific goods or services, there are also conglomerates which cater to multiple industries at a time.

1) Aerospace Industry



The aerospace industry is one of the highest technology industries. The aviation industry deals with manufacturing aircraft which take flights within and beyond the earth's atmospheric area. The process of manufacturing consists of various parts such as designing, building, testing, selling and maintaining. An aviation company also produces aircraft's parts to maintain the existing aircraft.

There are about 50 countries which own one or more than one aerospace company. These types of business industries show the economic strength of a particular country. The United States of

America is the leading country in these types of business industries. The USA has many large and small companies dedicated to aviation business.

America’s military and civil aviation industries have world’s dominance to export military as well domestic aircraft and their parts. Aerospace Industries Association of America (AIA) is an organization for aviation companies in America. It is an organization that provides solutions to technical and policy issues. There is a similar organization in Europe named European Association of Aerospace Industries (AECMA).

2) Transport Industry



The transport industry is one of the largest types of business industries. This industry deals with the movement of humans, things and animals by various modes of transportation. The

main modes of transportation are air, land (Road and Rail) and water. The transportation industry makes the largest part of any country's economy.

A strong Transportation is essential for a country's growth. Transportation industry makes approximately 17% of USA's GDP. Leading transportation company for airway is Singapore airlines which banged Skytrax World Airline Award in 2018. USA's railway network is the world's largest railway network with a route length of 2,50,000 KM followed by China's railway network of route length of 1,25,000 KM. Global's railway network is world's fourth largest railway network with route area of 68,525KM.

Other than these transportations, water transportation is one of the elite ways to commute and transport goods from one place to another. Alexander & Baldwin is Hawaii Based company is the leading water transportation company followed by America's American Commercial Lines Inc. Globaln railway is the world's only monopolistic organization in the railway sector.

3) Computer Industry



The computer industry has boomed drastically in the 21st century. Computer Industry has taken over almost every other industry. Computer industry or also known as Information Technology (IT) Industry. It includes businesses of computer hardware, developing and maintaining

computer software and computer networking. One major area which has been growing proliferatively is service sector.

The service sector has gone online in almost every sector such as health, education, retail, bank, beauty. There are hundreds of websites and apps for every single service. For example, Airbnb is a leading online service company which helps travelers to find places to stay while traveling and also help people to earn extra money by putting their extra space on rent.

4) Telecommunication industry



Telecommunication industry consists of companies which makes communication possible worldwide through mobile phones, internet, cable or wirelessly. It allows people to communicate using words, audio or video from any part of the world to any part of the world. Smartphones can send information thousands of miles away within seconds. The leading companies in the telecommunication industry are satellite companies, internet service providers, wireless operator. Wireless internet has helped other industries to generate great revenue.

This industry includes various sub-sectors such as communication equipment, wireless communication, ad-hoc network, mobile ad-hoc network, domestic telecommunication services, foreign telecommunication services, processing products, and systems. Mobile Ad-hoc network is the fastest growing sector in the telecommunication industry. There will soon be cars on the road without human drivers.

It will also reduce the cases of accidents on the road because roads will be able to sense the presence of other cars on the road using Mobile ad- hoc networks and sensor installed on the road.

5) Agriculture industry



The agriculture industry is one of the oldest types of business industry. Agriculture industry consists of cultivating land, plants and breeding animals to produce foods and other survival things. This industry is an integral part of every country's economy. The modernization in the agriculture industry took place in the late 20th century, which is known as "Green Revolution".

After that, the agriculture industry has grown exponentially. The agriculture industry is an important industry of countries like Global, Africa and other countries that have a good ecosystem. This industry consists of producing, providing, selling and exporting agricultural goods. This industry provides employment to researchers, scientists, biotechnicians, veterinarians, farm labors and development technicians.

Latest agronomy, genetically modified plants, chemical-like Pesticides, and fertilizers have sped-up and increased production. It seems a boon from a farmer's point of view, but it is causing deadly diseases such as Cancer to the people who consume it. Cargill, a Minneapolis based company is one of the renowned companies in the Agricultural industry.

6) Construction Industry



The construction sector is indulged in designing, building, constructing and maintaining the infrastructure. The construction industry can be sub-divided into three categories such as heavy construction, general construction, and specialized construction. Heavy construction includes the construction of bridges and roads etc. General construction includes the building of

residential places and commercial real estate. Specialized construction includes making electric and wood things required to construct a building.

This era has witnessed the modernization in the way of constructing building and houses. Construction and related types of business industries have benefitted from the advancement of technology. It has given us skyscrapers, which provides a place for everyone even with population growth. Recently, one technology named Building Information Modeling (BIM) has revolutionized the construction industry.

Usually, more than hundred people work on a single project and it becomes very difficult to keep in touch with everyone and communicate ideas. BIM eliminates this problem and provides a platform to work together and share ideas and cultivate a better plan.

7) Education Industry



Education industry or education system is a group of school, colleges, universities, and institutes to provide learning, knowledge, skills, and a degree in various fields. Educational institutes can broadly be divided into two categories public and private. Public institutes are funded by Strategic Alliancewhereas private institutes run by a single person or by a group of people.

Private institutes can be “For- Profit” or “Non – Profit” institutes. According to a recent survey, 18.2 million students are getting an education in the USA and out of 18.2 million 16.8 million are getting an education from “Non- Profitable” institutes. Enrollment of students is increasing every year in both traditional as well as in online courses.

Online courses are most preferred by working people or people above the age of 30 years, whereas regular students prefer to enroll in traditional courses. Every country keeps a large portion of the annual budget for this sector to update the education system to provide better skills to students.

8) Pharmaceutical Industry



The pharmaceutical company is a licensed firm to research, discover, develop, market and sell the drugs. It is an important industry worldwide. It is clearly research and development (R&D) based industry. Constant research is an important aspect of the pharmaceutical industry. These

companies research and produce drugs to cure diseases of humans and animals. There are some drugs that also treat symptoms.

Pharmaceutical companies are highly regularized companies. The United States' pharmaceutical industry comprises 45% of the Global Pharmaceutical Market. Johnson & Johnson and Pfizer and Merck &co. are the world's leading pharmaceutical companies. The United States pharmaceutical industry together with Canada and Mexico make the world's largest pharmaceutical market.

Medical device industry is another aspect of the pharmaceutical industry which deals with surgical equipment's, medical devices and implants. Companies like Medtronic, Boston Scientific, Carl Zeiss, etc are leaders in medical device industries.

9) Food Industry



Food Industry comprises processing, preservation, conversion, and preservation of eatable items. The raw material for the food industry is obtained from the agriculture industry. Therefore, the food industry is dependent on the agriculture industry. After processing food various chemicals and color are added to food items to preserve them for a long time with maintaining their taste. The food industry has grown exponentially in the past decade because in the fast-paced life people demand "ready – to – go" food.

The high demand for processed and packed food gave birth to many companies and almost every kind of food from instant noodles to curry is available in packets. Other than that food

service, as known as catering and food technology are also an integral part of this enormous food industry.

Food technology comprises Research and development to make more readymade food. Tyson Food Inc and PepsiCo are the two world's leading food processing companies.

10) Health care Industry



Health care industry provides remedial, diagnostic, curative, preventive, rehabilitative, therapeutic services to patients and to people in their old age. The main goal of this industry is to revive and maintain the health of peoples. It is one of the fastest growing industry. This type

of business industry has great potential for investors and entrepreneurs. Every country's Strategic Alliancespends a handsome amount of money to this sector.

There are both private and public companies to provide services. There are also many voluntary organizations which provide services to needy people free of cost. United Health group holds 5th rank in the 64th annual list of fortune 500 out of 40 health care companies selected from the USA.

The revenue of the United Health Group was $56.6 billion on 30th September 2018. Strategic Allianceinitiatives like Obamacare in the United States, Medicare in Global have given an enormous boost and assigned tremendous importance to the health care industry.

11) Hospitality Industry

The hospitality industry is vast types of business industries. It provides uncountable services to customers, so this industry is highly customer- oriented industry. Customer satisfaction is the main objective of this industry. This industry is exceptional, because the hospitality industry solely survives on “the want” of people, not need like health care industry.

There are three main broad categories of this type of industry such as accommodations, food and beverage, and travel and tourism. Airbnb is one of the most famous online hospitality services of providing cost-effective accommodation in any country. It can be accessed via mobile apps as well as the website.

Eleven Madison Park, New York, USA is one of the world's most luxurious restaurants which have universal appreciation and acceptance. This restaurant is famous for its ambiance and view and also the luxurious treatment to its guests.

12) Entertainment Industry



The entertainment industry is a huge business industry. It includes innumerable sub-sectors of entertainment. This industry runs on both entertainer and viewers. Entertainment has been an integral part of human society since ages, but recently it has become commercialized. This industry has grown by leaps and bounds in the past century. These types of business industries such as entertainment and hospitality industries make a great part of the Gross Domestic Product (GDP) of any country.

For example, football teams such as Belgium, France, and Brazil. These teams generate great revenue for their respective countries. Entertainment industry provides employment to a great number of people. There are many entertainers which are among the richest people in the world. These days the methods of entertaining people have changed.

People don’t have to put a lot of efforts to get into the limelight as they used to have. They can entertain people by sharing their stuff on YouTube and other similar platforms. Digital platform has helped to grow entertainment industry exponentially. Also with the availability of online video streaming companies like Netflix and Amazon prime has changed the way users interact with movies.

13) News Media Industry



News Media industry is an important industry. The target of this industry is to provide news to the people. It makes people aware of the happenings in the world. There are various media platform for example newspaper, Television, Radio, online blogs, websites, podcasts. Printed

NEWS letters were first circulated in Europe during World War, since then NEWS media has developed drastically.

The New York Times and Washington posts are among the most famous Newspapers. Nowadays, social media has taken the NEWS Media industry to another level. People come to know about the happenings of the world instantly. Some famous social media platforms are Facebook, Twitter, Instagram, YouTube etc. Getting information has become handy for the people of 21st century. People can also read News online by installing the apps of various NEWS channels.

14) Energy Industry

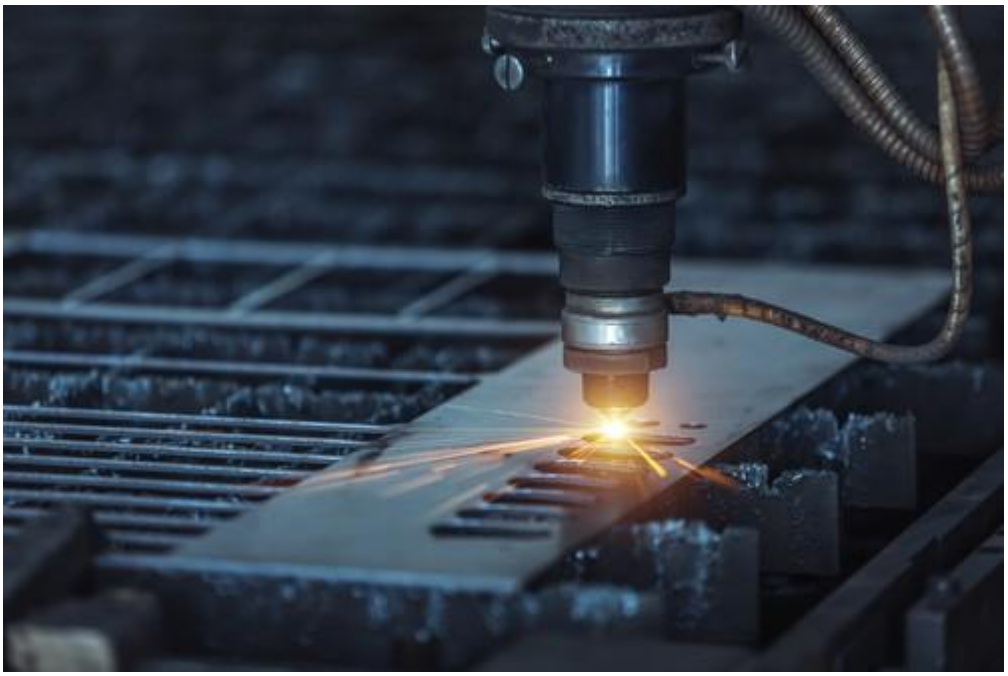


These types of business industries are important because of their wide applications in various sectors. Energy industry can be sub-divided into two categories renewable energy industry and non- renewable business industry. One important source of the renewable energy industry is petroleum. There are different operations take places such as extraction, refining, manufacturing, and sales.

Other than that, there is coal energy industry, nuclear power industry electric power industry. These types of business industries play an important role in the development of the nation. These source of energy sources are limited and they are diminishing soon. Therefore, a lot of research is devoted to alternative energy sectors.

The alternate energies are solar energy, wind energy, and hydroelectric energy. These days countries are spending a huge amount of money to maximize the use of alternate energy sources.

15) Manufacturing Industry



Manufacturing is the process of converting raw material and components into the final product to sell in the marketplace for public consumption. Manufacture industry has many categories, for example, food industry, petroleum industry, paper industry, wood industry, leather industry, textile mill industry, apparel industry, transportation equipment industry, electrical equipment industry etc.

Goods can be prepared in the mill, factories or plants for example fabric and goods can also be prepared by hands to sell in the market. Manufacturing industries provide employment to educated as well as labor class population of any country. In America, approximately 12 billion people are employed in the manufacturing industry.

16) Music Industry



Music industry one among the many types of business industries that run on the passion of people who works in it. This industry is made of Musicians, Composers, Lyrics writers, singers, instrument players. This industry is highly affected by technology. Old are the days when people used to buy CDs and DVDs. The United States of America observed the notable downfall in the CD sales.

However, the internet has taken over the other media. People can listen to music online anywhere and any part of the world. Music is available on various online platforms such as Soundcloud, Pandora, Spotify etc. The new term that has been given to this industry is Digital Music Industry.

The total revenue for the year 2018 is $5158 million dollars for Digital Music Industry and the revenue is expected to grow in the future also.

17) Mining Industry



The mining industry is dedicated to locating and extracting metals from the surface of the earth all around the world. These metals are used for commercial purposes and jewelry making. This industry also deals with production and trading of metals also.

Every country spends a lot for the exploration of a feasible place to extract metals. These types of business industries cause environmental problems, which is a matter of concern globally. This industry requires strict regulations for environmental protection reasons.

18) Worldwide web



Worldwide web also is known as web, is a network designed using HyperText Markup Language (HTML) and can be accessed using Hyper Text Transfer Protocol (HTTP). Worldwide web is invented in 1991 by Tim Berners-Lee. It was the revolutionary invention of that time. However, it became popular a decade later. A web page contains text, images, videos, audio, and links. Similar kinds of websites have the same domain name.

For example, an educational website has the domain name “edu”. People are running various websites such as education, entertainment, travel, food related. Worldwide web has provided various opportunity to people. People run their business online with very few technical skills. Ace example of this type of websites is “Amazon”.

Other than that people can interact with other people virtually using world wide web. It also assists us to send emails, make video and audio calls and share image with one another. Since 1991 the features on world wide web has been emerging and it has no signs of stopping any soon.

19) Electronics Industry



The electronics industry is one of the huge industries. This is the type of industry that produces electronics devices for commercial as well as domestic use, for example, smartphones, switches, circuit board, refrigerators, washing machines, and other AI-based goods. Electronic companies produce, market and sell electronic units. Global electronic industry has observed growth by average 5% from the year 2016 to 2018.

This industry has the responsibility to produce all technically advanced electronic equipment for the future. At present, the goal of the electronics industry is to mobile ad-hoc networks, smart cars, and wireless charging.

Manufacturing Process Meaning and Types

Manufacturing process is basically a complex activity, concerned with people who've a broad number of disciplines and expertise and a wide range of machinery, tools, and equipment with numerous levels of automation, such as computers, robots, and other equipment. Manufacturing pursuits must be receptive to several needs and developments.

Beside above, all the future technicians must understand the basic needs of workshop routines in terms of man, equipment, material, methods, revenue and other infrastructure conveniences needed to be placed properly for maximum shop or plant layouts and other support solutions effectively regulated or positioned in the field or industry within a properly planned manufacturing firm.

Meaning

The complete knowledge of fundamental workshop technology and manufacturing processes is highly troublesome for anybody to claim competence over it. It deals with numerous aspects of workshops procedures also for providing the basic working awareness of the various engineering materials, tools, accessories, manufacturing processes, basic concepts of machine instruments, production criteria's, traits and uses of numerous testing instruments and calibrating or inspecting units for checking materials or products designed in various production shops in a commercial environment. It also explains and illustrates the use of several hand tools (calibrating, marking, forming and supporting gear etc.), tools, machinery and diverse methods of production that facilitate forming or shaping the existing raw materials into appropriate usable forms. Below are some of the manufacturing processes that are worth reading.

Types of Manufacturing Processes

Machining

Tools used for machining are immobile power-driven units used to form or shape solid materials, specifically metals. The forming is done by removing extra materials from a work-piece. Machine tools make up the foundation of advanced industry and are utilized either indirectly or directly in the manufacturing of tool parts.



They are categorized under three main categories:

1. Traditional Chip-making tools.

2. Presses.

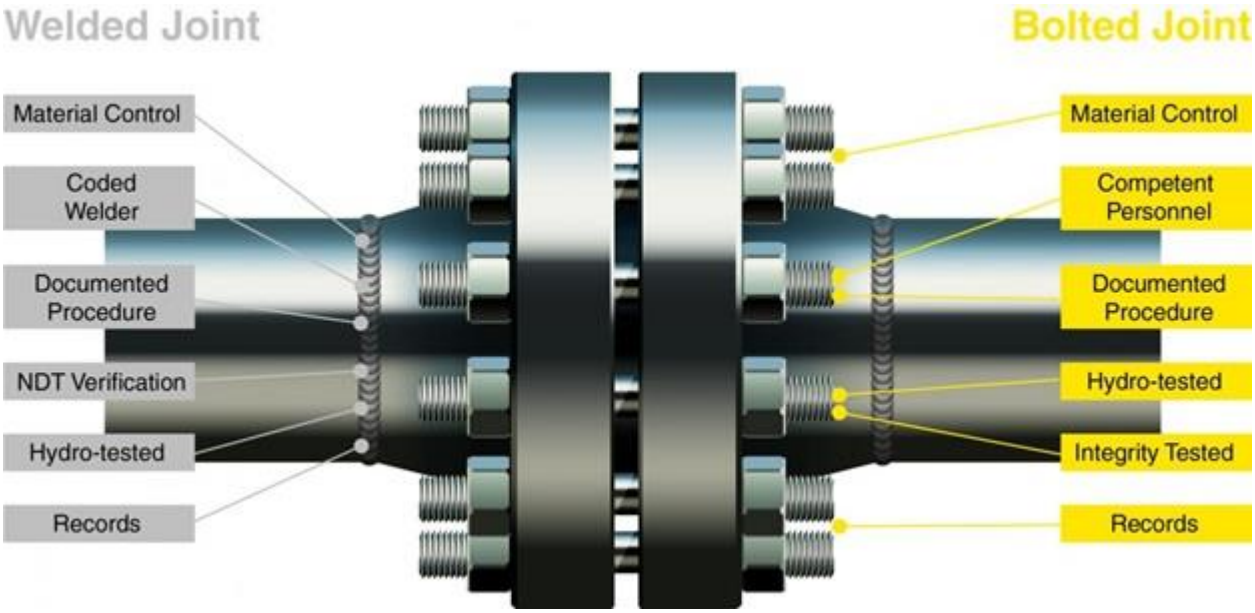
3. Modern machine tools.

Traditional chip-making tools form the work-piece by trimming away the unwanted part accessible as chips. Presses implement a several shaping processes, which includes shearing, pressing, or elongating. Non-traditional machine tools implement light, electric powered, chemical, and sonic power; superheated gas; and high-energy compound beams to form the exotic supplies and materials that have been created to meet the requirements of modern technology.

Joining

Every joining approach has particular design needs, while certain joint needs may propose a particular joining approach. Design for assembly, and fastener selection apply their own specifications.

Bolting is a standard fastening method, for instance, but welding may cut down the weight of assemblies. Naturally, joints intended for the two approaches would differ tremendously.



However, all joint patterns must consider features such as load factors, assembly effectiveness, operating surroundings, overhaul and upkeep, and the materials chosen.

Welding is generally a cost-effective approach to fabricate. It doesn't require overlapping materials, and so it removes excess weight brought on by other fastening methods. Fasteners don't have to be purchased and stored in stock. Welding also can minimize costs related to extra parts, for example angles mounted between parts.

Forming

Metal forming is the approach of creating the metallic components by deforming the metal but not by removing, cutting, shredding or breaking any part. Bending, spinning, drawing, and stretching are a few important metal forming process in manufacturing. The metal press such as die and punching tools are implemented for this manufacturing process.

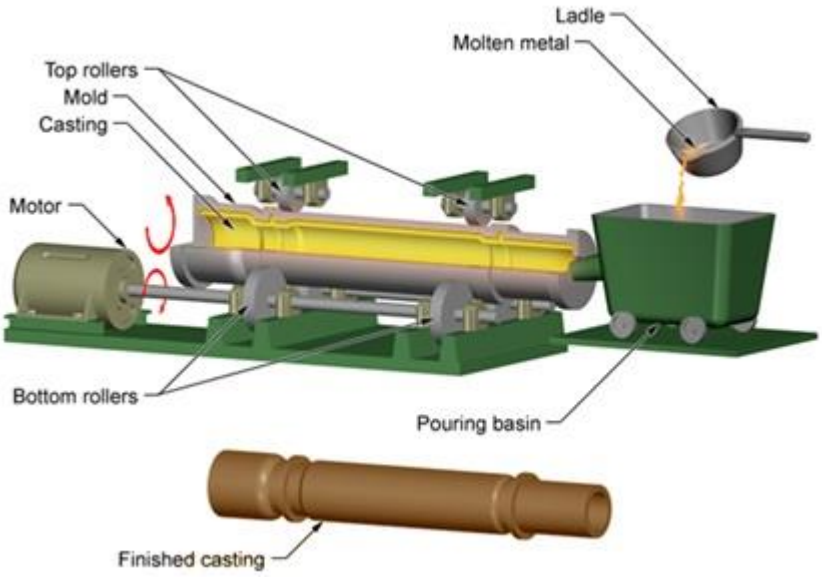


Advantages: – Same equipment can be utilized for manufacturing various components by simply changing the dies.

Disadvantages: – High apparatus and tooling expenses. – Heat treatment must be applied afterwards.

Casting

Casting is a manufacturing process in which a solid is dissolved into a liquid, heated to appropriate temperature (sometimes processed to change its chemical formula), and is then added into a mold or cavity. Thus, in just one step, complex or simple shapes can be crafted from any kind of metal that has the capability to be melted. The end product can have practically any arrangement the designer wants.



Furthermore, the reluctance to working challenges can be improved, directional attributes can be managed, and a pleasing look can be developed.

Casting process

It is a liquid state manufacturing process. In casting process we put molten metal into a die of desired shape and obtain our product when the metal become solid.

Types of casting processes

- Sand casting
- Shell mould casting
- Precision investment casting
- Plaster mould casting
- Permanent mould casting
- Die casting
- Centrifugal casting

Advantages of casting process

- Tooling required for casting process is relatively cheap and in expensive
- Cost of final product is low compared to other processes
- Almost any metal can be used in this method
- Any component even with a complex shape can be cast
- There is no limit on the size of component

Disadvantages of casting process

- It is not possible to achieve close dimensional accuracy hence further machining is required
- Components manufactured by this process have a rough surface finish
- Long and thin sections are not possible for cast components

Forming process

This is a solid state manufacturing process. In forming process we change shape of material with the help of external power or force.

Types of metal forming process

- Rolling
- Drop forging
- Press forging
- Upset forging
- Extrusion
- Wire drawing
- Sheet metal operations

Advantages of forming process

- They are inherently tough and have a good strength
- Optimum utilization of raw material
- Thin sections can be produced without reducing strength
- It is possible to achieve close dimensional accuracy

- It has high production rates

Disadvantages of forming process

- It is a costly process
- It is only economical when parts formed on a large scale

Fabrication process

It is a secondary manufacturing process. In fabrication process we join two or more metal or non metal parts together. Fabrication is done with the help of heat and (or) pressure.

Types of fabrication process

- Gas welding
- Electric arc welding
- Electric resistance welding
- Thermal welding
- Cold welding
- Thermit welding
- Cold welding
- Brazing

- Soldering

Advantages of fabrication process

- It can be performed ether manually or by automation
- It can be performed even at construction site
- It provides leak proof joints
- It can be performed remotely in hazardous environment using robots
- It has reasonable cost

Disadvantages of fabrication process

- Base material can be deformed due to heat produced
- Skilled operator is required to do welding or other fabrication
- Impossible to dismantle parts without destruction

Material Removal

This is a secondary manufacturing process. Generally dimensions of the products obtained by casting processes are not perfect so we have to remove extra metal from the casting with the help of material removal processes.

Material removal processes are also used to make holes and other complex shapes which are difficult to make with the help of other manufacturing processes.

Types of material removal processes

- Turning
- Drilling
- Shaping and planning
- Milling
- Grinding
- Broaching
- Sawing

The manufacturing processes can be classified as: 1. Forming Processes 2. Moulding Processes 3. Machining Processes 4. Assembly Processes 5. Finishing Processes.

1. Forming Processes:

In the metal industry, some of the primary forming operations may take place such as the rolling of basic shapes in steel, aluminium etc. Some of the common shapes so obtained from these processes are bars, sheets, billets, I-beams etc. Which are standard shapes. These shapes can be used for further processing. Other forming processes may be drop-forging, stamping, extrusion, press work, punching, drawing etc.

2. Moulding Processes:

Some products require moulding processes such as sand casting, die-casting etc. to get basic shape or form which may or may not require further processing. The selection of the particular process will depend upon to size of the job, quantity to be produced, accuracy, and complexity desired and economy.

3. Machining Processes:

Metal machining is accomplished through basic machine tool processes which involve the generation of cylindrical surfaces, flat surfaces, complex curves and holes. The machine tools

selected to accomplish this task depend on the size and shape of the part to be machined, the quality of finish required and production rate required.

The examples of such processes are: turning, shaping, drilling, boring, grinding etc. In these machining operations metal is removed from the part in the form of small chips by the cutting action of tool. The cutting action is accomplished by either rotating or reciprocating action of the tool relating to the part.

4. Assembly Processes:

These processes assemble the parts and materials using welding, riveting, soldering, brazing, mechanical fastening and adhesive joining etc.

5. Finishing Processes:

These processes are carried out for the aesthetic aspects, to achieve accuracy, surface finish or to increase life of the product. Such processes include cleaning, blasting, deburring, puffing, honing, lapping, polishing, painting etc.



Advantages of material removal process

- Almost any material can be machined
- It is possible to achieve close denominational accuracy

- Parts manufactured by material removal process have good surface finish

Disadvantages of material removal process

- This is a costly process
- Production rate is low compared to casting or forging
- It is not possible to machine thin sections and projections
- There is wastage of material in this process

Quality Control

Quality control (QC) is a procedure or set of procedures intended to ensure that a manufactured product or performed service adheres to a defined set of quality criteria or meets the requirements of the client or customer. QC is similar to, but not identical with, quality assurance (QA). While QA refers to the confirmation that specified requirements have been met by a product or service, QC refers to the actual inspection of these elements.

QA is sometimes expressed together with QC as a single expression: quality assurance and control (QA/QC).

The quality control procedure

In order to implement an effective QC program, an enterprise must first decide which specific standards the product or service must meet. Then the extent of QC actions must be determined -- for example, the percentage of units to be tested from each lot.

Next, real-world data must be collected -- such as the percentage of units that fail -- and the results reported to management personnel. After this, corrective action must be decided upon and taken. For example, defective units must be repaired or rejected, and poor service repeated at no charge until the customer is satisfied. If too many unit failures or instances of poor service occur, a plan must be devised to improve the production or service process; then that plan must be put into action.

Finally, the QC process must be ongoing to ensure that remedial efforts, if required, have produced satisfactory results and to immediately detect recurrences or new instances of trouble.

Quality is a relative concept. It is related to certain predetermined characteristics such as shape, dimensions, composition, finish, colour, weight, etc. In simple words, quality is the performance of the product as per the commitment made by the producer to the consumer. J. M. Juran (1970) who is considered the father of quality research has defined quality as "the performance of the product as per the commitment made by the producer to the consumer."

There are two main elements in this definition of quality. First, the commitment may be explicit such as a written contract or it may be implied in terms of the expectations of the average consumer of the product. Second, the performance of the product relates to the ultimate functions and services which the final product must give to the final consumer.

For example, a watch should show accurate time or a ball point pen should write legibly on a piece of paper. According to ISO 8402: Quality Vocabulary, quality is the “The totality of features and characteristics of a product or service that on its ability to satisfy stated or implied needs.”

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In practice, when we say any product as a quality product, it means the product satisfies certain criteria for its functioning. For a quality product, it is necessary that it should satisfy the laid down criteria not only at the time of its manufacture, but also over a reasonable length of time. In Global, Bureau of Globaln Standards (BIS) lays down certain criteria for a number of products both – industrial and domestic.

Quality control is also a strategic decision. It can be defined as the systematic control of those variables which are encountered in the manufacturing process and which adversely affect the excellence of the final product in one way or other.

Alfort and Beaty defined quality control as:

“Quality control is the mechanism by which products are made to measure up to the specifications determined from the customer’s demands and transform into sales, engineering and manufacturing requirements. It is concerned with making things right rather than discovering and rejecting those made wrong. Quality control is a technique by means of which products of uniform acceptable quality are manufactured.”

Importance:

Quality control of products bears distinct advantages for all – whether producers or consumers.

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Some of the important advantages to quality control are as follows:

1. The brand products build up goodwill or image which ultimately increases sales.

2. It helps the manufacturers/ entrepreneurs in fixing responsibility of workers in the production process.

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3. Quality control also helps in minimizing the costs by increasing efficiency, standardization, working conditions, etc.

4. It also enables the entrepreneur to know the cost of his / her product quite in advance which helps him in determining competitive prices of his product.

5. Last but not the least; the entrepreneur can confirm whether the product manufactured by him / her is in accordance with the standard set by the Government. It further facilitates the entrepreneur to take necessary actions to comply with the standard set.

Methods or Tools of Quality Control:

Any variations in the quality of a product, i.e., standards set are mainly caused by variations in raw material, men, machines, methods, and procedures of procedures of production and inspection. In order to produce the quality products, these variations need to be checked and controlled. There are mainly two methods of quality control.

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These are:

1. Inspection:

Inspection, in fact, is the common method used for quality control purposes not only in production but also in services.

As regards inspection in production, there are three important aspects involved in it:

(i) Product Inspection:

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As the name itself suggests, the product inspection relates to the final product sent into the market. The main purpose of product inspection is to ensure that the products sent into the market comply with the set standard for quality. In other words, it is to ensure that the product ready for sale is perfect and free of defects.

(ii) Process Inspection:

Process inspection proceeds to product inspection. It is aimed at ensuring that the raw material and machines and equipment's used in the production process are of prescribed quality and mark.

Process inspection benefits the unit in two ways:

(1) It ensures the manufacturing of a quality product.

(2) It saves wastages of material by preventing process bottlenecks.

(iii) Inspection Analysis:

This is a method based on the analyses of inspections made. The conclusions derived from the inspection analyses help the entrepreneur locate the exact points in manufacturing process where faults lie. In other words, it enables the entrepreneur to identify the points at which deviations from standard set start. Quality control through Inspection Method is shown in the following Figure 27.3.

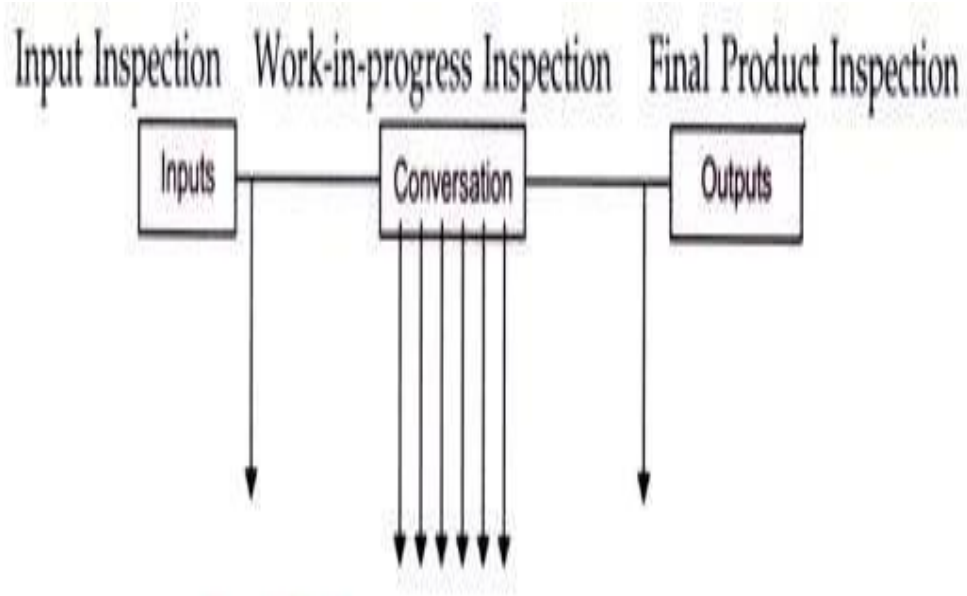


Figure 27.3: Quality Control Through Inspection

2. Statistical Quality Control:

It is an advanced method or technique used to control the quality of a product. This method is based on statistical techniques to determine and control the quality. Sampling, probability, and other statistical inferences are used in this method for controlling the quality of a product. It is widely used in process control in continuous process industries and in industries producing goods on a mass scale.

Under this method, the entire lot is, firstly, sampled on the basis of its specific characteristics and, then, is divided into three parts as mentioned below:

(i) Analysis of Samples

(ii) Use of Control Charts

(iii) Corrective Measures.

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A brief description about each of these follows:

(i) Analysis of Samples:

This is based on sampling techniques. First of all, the universe i.e., the population to be analyzed, is identified. After this, following the sampling technique, the sample representing the whole population is selected and analyzed.

It is important that we do not need to analyze all the units of the population, but only a few units called ‘sample units’ are studied and analyzed. The results drawn from these sample units

are then generalized as a whole. In other words, inspection of samples means statistical inspection of the whole manufactured lot.

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(ii) Use of Control Chart:

Realizing that figures/ charts are always welcome to depict the fact of findings, the results obtained from analysis of samples are presented in a chart.

The method to draw a chart is as follows:

(i) Measure the quality characteristics of sample selected.

(ii) Find out the mean of the sample and also measure its range of dispersion.

(iii) Then, data regarding mean and dispersion are gathered.

(iv) Take a graph paper and plot the gathered data on it.

Thus, you have a control chart ready to guide you about the quality deviation of your product.

The shape of the control chart so plotted will be like as follows:

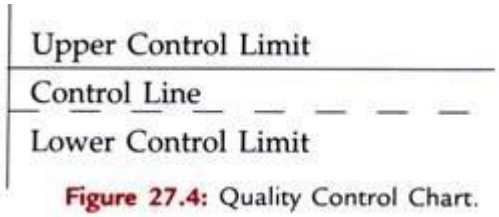


Figure 27.4: Quality Control Chart.

(iii) Corrective Measures:

Having drawn quality control chart, the entrepreneur can easily and clearly locate the points of deviations and causes of it. This enables him to evolve corrective measures to control the quality of the product accordingly. For example, if variation in quality is caused by inferior quality raw material, the quality of raw material will be increased. Similarly, in case of traditional machinery, new and modem machinery will be installed.

Quality Control in Small-Scale Industries:

Although quality control is necessary for all units, yet it is more necessary for small-scale units. This is because of the great use of manpower in small-scale industries during the manufacturing processes. But, the application of quality control is difficult in them because of several limitations like financial, technical and managerial. Quality implementation is total organizational effort.

The successful implementation of quality control largely depends upon the quality of raw materials, selection of machinery and equipment, designing, manufacturing, processes, etc. Besides, the timely and required assistance from the Strategic Allianceorganizations, associations, and institutes also contribute to successful implementation of quality control. In Global, Bureau of Globaln Standards (BIS) has been doing a yeoman job in determining the quality of a large number of products by laying down various criteria for them.

The quality control in small-scale industries is generally based on:

(a) Globaln Standards specification.

(b) Quality marketing schemes.

(c) Company Standards in case of ancillary units.

(d) Any other standard specification prescribed by the Strategic Allianceor other purchasing agencies.

The Globaln Standards Specifications have been playing an important role in persuading small-scale industries to adhere to the quality of their products.

For controlling the quality of products manufactured by small units, the following Global Standards have been published so far:

(a) Methods of statistical quality control during the production period.

(b) Manual on basic principles of lot sampling; and

(c) Sampling inspection table.

Several State Governments have been operating quality marketing schemes and standards for various products of small-scale industries. When the small units manufacture their products according to the standards set, the Quality Marketing Centers of the Strategic Alliancestamp the "Q" mark on their products. This is an assurance for the customers that the product has been manufactured adhering to certain quality standards.

Quality Control of Export Production:

Implementation of quality control has been very useful in raising exports from an economy. A product can be sold in foreign markets only when it is not only cheaper but up to a certain quality also. Standardization of these products convinces the foreign customers better than any sales campaign.

Realising this fact, the Strategic Allianceof Global has made the inspection of several products manufactured by small-scale industries compulsory before they are shipped abroad. This has proved very beneficial for the Globaln exporters to sell their products in highly competitive foreign markets.

Cost of Quality Control:

Lastly, let us also address to an important aspect of quality control, i.e., cost involved in ensuring quality products. In fact, it is difficult, if not impossible, to precisely define cost incurred in quality assurance due to so many imponderables involved. But there is no denying of the fact that it should be a minor proportion of the total product cost incurred. How much minimum should be the proportion of quality cost to total cost depends upon various factors?

Some of the important ones are:

(a) Type of product, its functional use and hazards involved in its use.

(b) The degree of quality awareness prevailing in the enterprise by implementation of the concepts like Total Quality Management (TQM) and Quality Control (QC).

(c) Lastly, additional costs to be incurred for ensuring higher quality standards. It must be kept in mind that there is no optimum value between quality and product cost.

One last word before we leave our discussion on quality control. Quality control in the Globaln small-scale industry has been satisfactory. Eugene Staley's observation in this regard aptly supports our statement. He observes: "A surviving unit in Global is a strategic planner and makes its grade anywhere in the world, because his survival here against all odds is by itself the best testimony."

What Types of Inspection are in Quality Control for Manufacturing?

A nationwide salmonella scare cost a British confectionery giant £20m and a 14% drop in summer sales in 2006.

A recall of 60m cans of dog food sent shockwaves through America's pet food industry in 2007.

A motor industry magnate had to recall 44,000 cars over uncertified carbon dioxide levels early in 2019.

Taking back 15,000 microwaves was just one in a string of faulty product recalls for a kitchen equipment conglomerate that cost them dearly.

While powerhouse brands usually have the resources to outlive the setbacks posed by such recalls and rebound in the long run, there's always the risk of bad press becoming even a well-established brand's death knell.

Millions of products and millions in profits could have been saved if the brands had invested a fraction of these financial costs in pre-emptive quality control inspections during the manufacturing process.

A simple secret to success is: prevention is better than cure and more effective than damage control.

Hence the need to take preventative measures by mediating and monitoring the manufacturing process with quality control inspections from start to finish, including overseeing the final packaging and preparations for shipping.

In this article, we'll cover the types of inspection in quality control, specifically for manufacturers.

Make Sure Your Manufacturer Keeps Their Promises to Produce Quality Products

When you're relying on a third-party manufacturer, especially one in a foreign country, you need to be confident that the manufacturer will deliver a product that meets all of your expectations.

For instance, if you're a garment producer, you need to be sure your manufacturer is cutting the right fabric, rather than cutting corners by using substandard materials.

How can you be sure your manufacturer is producing products that meet your expectations?

By carrying out quality control inspections before, during, and after production - it is the key to consistency in product quality.

In addition, using accredited third-party quality control inspectors will ensure that inspections are done according to international standards.

What are the Different Types of Inspection in Quality Control Services?

Quality control experts visit factories on behalf of customers to ensure the manufacturing process and products meet the standards agreed upon before the merchandise leaves the factory.

Quality control services include on-site factory inspections and testing with detailed reports to help ensure that your products meet your specifications and manage product quality in your supply chain.

Inspections for softlines and hardlines (non-food products) can follow the internationally recognized ANSI/ASQC Z1.4 (ISO 2859-1) statistical sampling procedure to specify a percentage of a batch of products which must be inspected to represent the overall quality of the entire batch, commonly referred to as the Acceptable Quality Limit (AQL).

The producer or supplier should provide checklists to inspectors to determine the acceptable quality tolerance level for defects or non-conformity.

Determining Defects

Factory inspections for defects are performed by marking products (units) which do not satisfy the product's intended use. On-site quality control inspectors use ANSI/ASQ A3534-2-1993 standard checklists to mark any defective units according to the severity level of any defects.

Examples of Defects

- Button and buttonhole on a garment do not align
- A product or part of a product that does not function
- Incorrect or unauthorized materials used

Determining Non-Conformity

Factory inspections for non-conformity determine whether a completed product (unit) meets the customer's specification requirements. Inspected units are marked according to the severity level of any characteristics which don't meet accepted standards.

Examples of Non Conformity

- Wrong size

- Incorrect labeling
- Dimensions do not meet accepted values
- Weight
- Incorrect power input/output for the destination market

Food Inspections

inspections on processed and perishable foods are done in accordance with the guidelines of the WHO Food Code (Codex Alimentarius).

5 On-site Quality Inspection Services

On-site factory inspections primarily focus on monitoring the manufacturing process and testing the physical condition of the resulting products for compliance with the client's requirements. In addition, they ensure that the products are properly packaged and correctly loaded for shipping and customs inspection at the destination.

Factory inspections can be conducted at any stage of the manufacturing process, depending on the buyer's or supplier's requirements. These include:

1. Initial Production Check

Pre-product inspections are carried out before production begins and up until 20% of production has been completed. Inspections of the factory by impartial third-party quality control inspectors help clarify production requirements and specifications and firmly establish whether the manufacturer will be able to deliver on the promise to produce a quality product using the correct materials and manufacturing process.

First Article Inspection, an important part of the Initial Production Check, is to inspect the first item to come off the production line at the factory. This is the first and last chance to physically inspect the final product and spot any defects so corrections can be made ahead of mass production. This inspection assesses whether the final product meets all the engineering, design, and specification requirements. The results are documented and sent to the client for verification.

2. During Production Inspection (DUPRO)

DUPRO is an essential preventative measure taken in the early stages of production, which can mitigate costly mistakes in the long run by highlighting any problems before too many defective items are produced.

Quality control inspectors usually perform on-site DUPRO inspections when about 20% of the batch has come off the production line. If an issue is found at this time, it may be possible to find a workaround to fix the defective products and/or make necessary adjustments to the manufacturing process.

3. Daily Production Monitoring

Quality control inspectors carry out on-site inspections at the factory every day to strictly monitor production and keep the factory accountable from start to finish. This is an especially beneficial option for suppliers working with a new factory to establish a professional working relationship. Daily inspections during product monitoring include scrutinizing factory processes, enforcing specifications, and physically inspecting random units.

4. Pre-Shipment Inspection (PSI)

Using ISO standard sampling procedures for a PSI, inspectors systematically inspect a portion of randomly selected units in all batches when production is at least 80% complete. This is the last chance to spot any defects and take corrective action before production is complete, and before the products are packed for shipping.

5. Container Loading Check (CLC)

The final but crucial step in the quality control process is packing up the new product and properly preparing batches for shipping to destination markets.

During the container loading check inspectors ensure the correct amount of different styles, sizes and quantities are sent out, and that they are properly loaded to minimize the risk of damage during transit.

Quality control inspectors also check the packaging to ensure it complies with safety standards for the destination market and ensure that coverings will prevent damage from soiling. Proper ventilation in the packaging is also checked to prevent dampness and reduce the risk of mold growth during transit and storage.

What is Not Covered in Factory Inspections?

Chemical testing required for certain products cannot be performed on-site at factories. Instead, samples of products are sent to laboratories.

CHAPTER 4

CASE STUDIES

ABC Technologies is a leading global service provider known for its technology-driven business solutions. With a strong commitment to quality and excellence, ABC Technologies has implemented Six Sigma methodologies to drive process improvement and achieve strategic objectives. As a result, the organization has emerged as a pioneer in the industry, setting new standards for career advancement and salary optimization strategies for HR professionals in global organizations.

With its focus on continuous improvement, ABC Technologies has dedicated a decade to refining its Six Sigma program, making it the most mature in the industry. This commitment has yielded remarkable results, with 91% of projects completed on time, surpassing the industry average of 55%. Such impressive performance has created a unique advantage for HR professionals in terms of career growth and salary optimization.

The adoption of Six Sigma at ABC Technologies has been seamless, as the organization encountered no resistance during its implementation. This smooth transition has allowed the Six Sigma program to permeate across various verticals, making a significant impact on areas such as market development, project management, and resource utilization. HR professionals,

being integral to these areas, have been at the forefront of implementing and driving Six Sigma methodologies.

The incorporation of Six Sigma into HR practices has paved the way for career advancement opportunities within ABC Technologies. By leveraging the tools and principles of Six Sigma, HR professionals have been able to identify process bottlenecks, eliminate waste, and enhance overall efficiency. This optimized workflow not only enables HR professionals to deliver exceptional value to the organization but also positions them for accelerated career growth.

Furthermore, the successful implementation of Six Sigma at ABC Technologies has had a positive influence on salary optimization strategies for HR professionals. With improved process efficiency and increased productivity, HR professionals can demonstrate their value and contributions more effectively. This, in turn, allows for fair and transparent salary structures that align with individual performance, fostering motivation and satisfaction among HR professionals.

In conclusion, ABC Technologies' pioneering implementation of Six Sigma has revolutionized career advancement and salary optimization strategies for HR professionals in global organizations. The organization's unwavering commitment to quality and excellence, reflected in its mature Six Sigma program, has provided HR professionals with a solid foundation for professional growth. By embracing Six Sigma methodologies, HR professionals at ABC Technologies have positioned themselves at the forefront of innovation and efficiency, driving both their personal success and the overall success of the organization.

Need for Six Sigma:



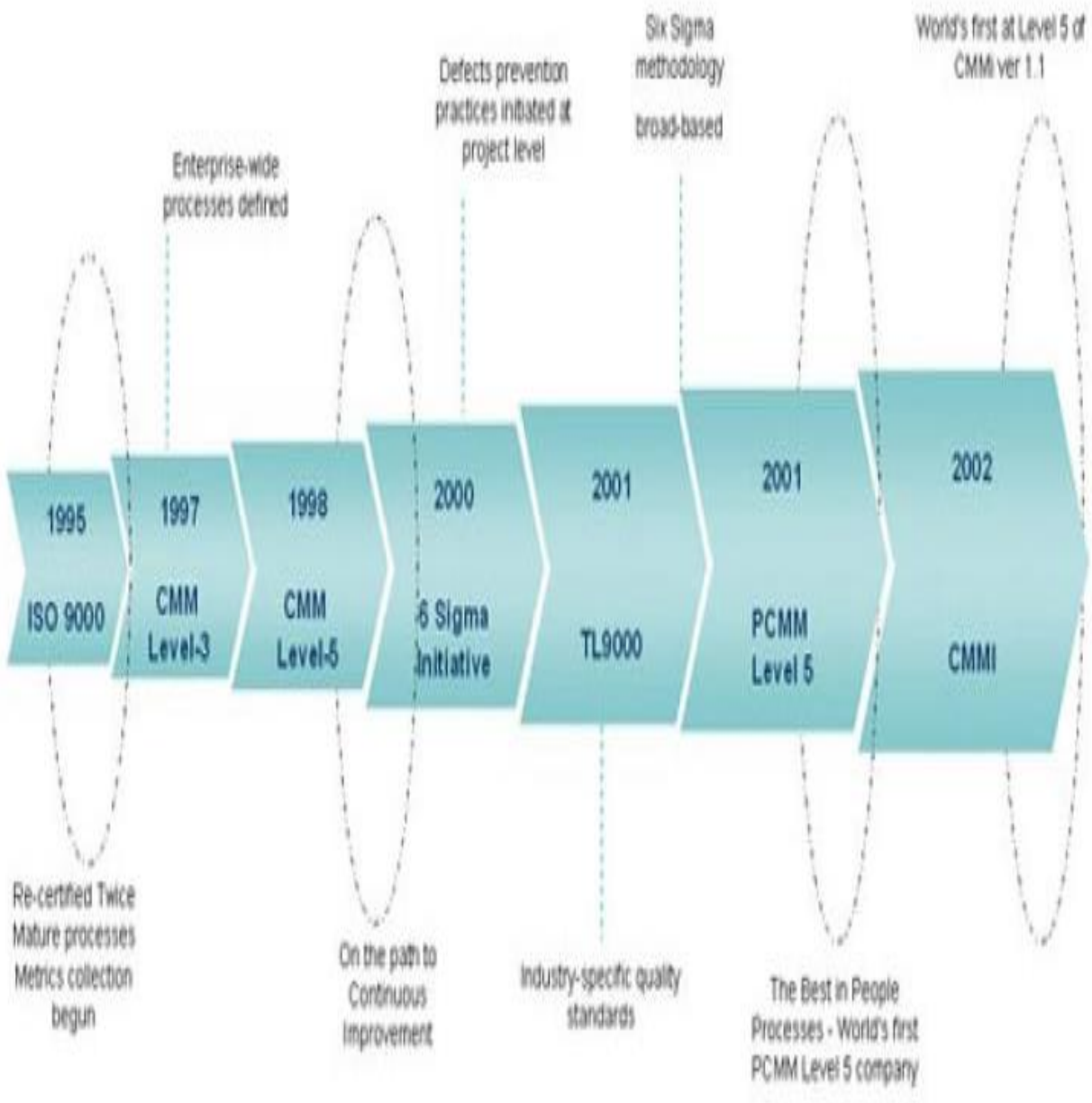
- ABC Technologies, a global service provider, has successfully implemented Six Sigma methodologies, setting new standards for career advancement and salary optimization strategies in HR professionals within global organizations.
- The organization's mature Six Sigma program, with an impressive 91% project completion rate compared to the industry average of 55%, has created a unique advantage for HR professionals in terms of career growth and salary optimization.
- The seamless adoption of Six Sigma at ABC Technologies has allowed HR professionals to drive process improvement across various verticals, including market development, project management, and resource utilization.
- By leveraging Six Sigma tools and principles, HR professionals have identified process bottlenecks, eliminated waste, and enhanced overall efficiency, positioning themselves for accelerated career growth within the organization.
- The successful implementation of Six Sigma has not only improved HR professionals' ability to deliver exceptional value but has also fostered fair and transparent salary structures that align with individual performance, promoting motivation and satisfaction in their roles.

What does Six Sigma mean at ABC?

- Products and Services should meet the global standards
- Robust Process should be ensured within the organization
- Customer expectations should be met and exceeded
- Develop a culture that focuses on Quality

Phased Implementation:

The head of each department and the top managerial level were involved in adopting Six Sigma Program at Wipro.

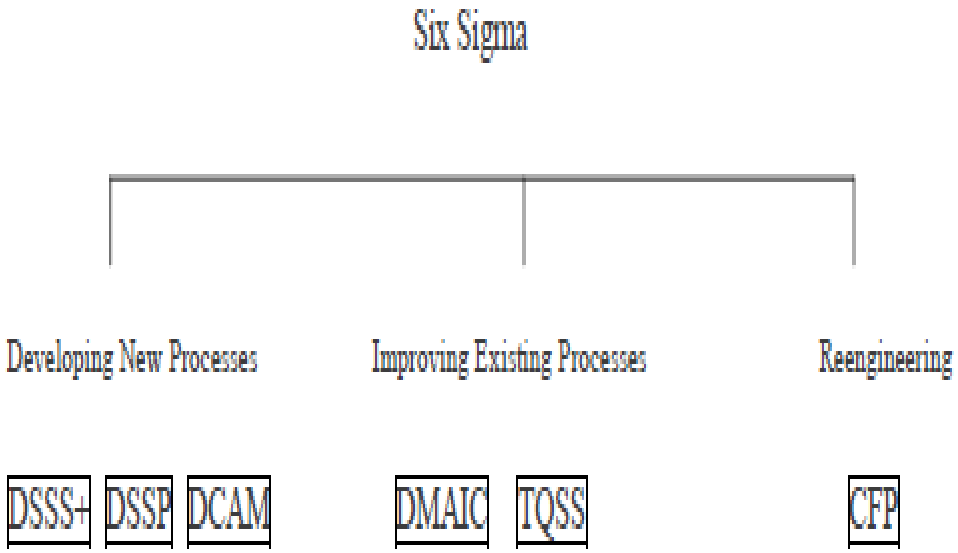


i. **Challenges faced during the implementation of Six Sigma Program:**

- **Changing the culture**: Restructuring the organization's culture, infrastructure, training and confidence building took time.
- **Project Selection**: Choosing a suitable project in the first year was a challenge. Wipro decided to select those projects which had a higher chance of success and targeted to complete this project in a short time span.
- **Training**: Finding the right people and training those people presented a tough job at Wipro. The training was rolled out in 5 phases: Defining, measuring, analyzing, improving and controlling the process and lastly increasing customer satisfaction.

Wipro implemented the Six Sigma Program for different service lines:

- Developing new Processes
- Improving Existing Processes
- Reengineering



Benefits of Six Sigma Program:

- Reduction in product defects: For example software defects at Wipro reduced by 50%
- Reduction in cycle time: For example rework in software now took 5% instead of 12%
- Waste elimination
- Increased Productivity by 35%
- Tangible Productivity due to lower cost uncured in developing application
- Cost of failure avoidance: For example installation failure dropped to 1% from 4.5%
- Increased customer satisfaction

Productivity : A Competitive Tool

Effective alignment of strategies and tactics is crucial for the success of global organizations and the career advancement of HR professionals. Companies that mix or complicate their business objectives often lose focus, negatively impacting productivity and overall business performance.

The power of simplicity and clear objectives can drive significant profit increases and create opportunities for career growth. For example, Ikea and the New Zealand-based warehouse chain achieved remarkable success by keeping their goals simple and easily understandable, leading to improved employee performance and profitability.

Transparency and openness within an organization are key factors in enhancing productivity and fostering career advancement. When employees have a clear understanding of the company's mission and goals, as demonstrated by Yellow Freight and SRC holdings, they can align their efforts and contribute effectively towards achieving organizational success.

Embracing a culture of innovation and encouraging suggestions from all levels of the workforce can greatly enhance productivity. Companies like Gillette and Nucor have excelled by valuing employee input and utilizing their innovative ideas to drive business growth and improve efficiency.

Productive companies prioritize continuous improvement and adaptability in response to changing customer needs and market demands. By focusing on day-to-day operations, customer satisfaction, and long-term efficiency rather than solely relying on financial statements, organizations can create a conducive environment for career advancement and salary optimization strategies for HR professionals.

In summary, the factors influencing career advancement and salary optimization strategies for HR professionals in global organizations include the effective alignment of strategies, simplicity and clarity of objectives, transparency and openness, innovation and employee engagement, and a focus on continuous improvement and adaptability. By embracing these

factors, organizations can create an environment that fosters career growth and enhances overall productivity.

Conclusion

Most productive companies focus on the customers to retain them and further to be productive. It's true that they don't do different things rather they do things differently. They have in them the ability and the guts to think of how they can change the traditional ways of doing things. All productive firms mentioned here have achieved the top slots not merely by fluke but by their strong willpower, hard work, dedication, taking calculated risks and making things happen rather than waiting for things to happen. Jason list's some points which every company that wishes to achieve its full economic potential must do. The list includes:

* Have a 'cause' that unites everyone in the company in pursuit of a common objective.

* Make certain that everyone within the organization-from the CEO down to the last employee-is constantly interfacing with customers.

* Strive relentlessly to eliminate wasted effort, work and process.

Brilliant companies offer solutions to their customers; they don't sell stuff. Becoming

productive is a difficult task and difficult still is sustaining the position. But in this overcrowded business world the only option left for firms is to become as productive as they can.

Best Buy's 'Results Only Work Environment': Changing the Productivity Paradigm?

As of late 2006, more than 50 percent of the employees at Best Buy's headquarters were on ROWE. The company announced that ROWE had yielded positive results in the few years that it had been in practice at the headquarters.

Reportedly, ROWE teams had an average 3.2 percent lower voluntary turnover than non-ROWE teams. Average productivity of ROWE teams had also increased 35 percent. Employee engagement, which was a measure of job satisfaction and hence an important factor in retention, was also reported to be significantly higher in ROWE teams. Best Buy reportedly witnessed several non-quantifiable benefits as well. For instance, managers at the company said that ROWE made their work easier. They admitted that, despite their previous misgivings,

performance was actually easier to track under ROWE than under conventional systems. Similarly, problems were also easier to identify and correct...

ROWE's Limitations

Notwithstanding its acceptance among employees, ROWE had several kinks that needed to be ironed out before the program could become a workplace standard. One of the biggest concerns about ROWE was that the difference between the work and personal time of the employees could become blurred. Some people felt that just because employees were not working when they should be, they might be working at all times of the day, blurring the difference between work and leisure. This had the potential to create more stress for them than long work hours, said some analysts..

Outlook

In late 2006, Best Buy announced that it was working on a project that would allow ROWE to be implemented in a modified form in the company's retail stores, which employed almost 120,000 people. The company believed that an employee-friendly work environment could provide a solution to the problem of high attrition in the stores. (Best Buy's voluntary attrition in its retail stores was around 65 percent in 2006.) "It's a well-known fact that it's difficult to

keep people working in retail - not just at Best Buy - because of the hours and the stress. We want to look at deeply held beliefs in the retail environment and whether they're actually in the way of both associates' and customers' needs," said Thompson...

A New Kind of Workplace

In 2005-2006, Best Buy Co., Inc. (Best Buy), one of the leading retailers of consumer electronic products in the US, was in the news for implementing an innovative workplace program called 'Results Only Work Environment' or ROWE, for its corporate employees.[4] ROWE, as the name indicated, focused only on 'results' as a measure of employee productivity. Under ROWE, employees were allowed to work when they wanted, where they wanted, just as long as they achieved their targets. Hours were not measured and putting in an appearance at the office was not necessary. As of late 2006, the program was still finding its feet, but it was already widely discussed and analyzed.

In some corporate circles, ROWE was hailed as a path-breaking program, which would give new meaning to flexibility and work/life balance. Skeptics however, were concerned about the chaos that could be created if thousands of employees in every organization worked without authorized boundaries.

ROWE differed from traditional 'flexible work schedules' in that, under flexibility, employees were still expected to put in an appearance at the workplace. Either the start and finish times were flexible, or employees worked for a certain number of days in the week at home and the rest at office. Under ROWE however, coming in to office was entirely voluntary. Even physical attendance at meetings was not compulsory. In the early 2000s, workplace stress had become a matter of concern in the US as well as other developed economies in the world. In the US, the number of hours in the work-week had reportedly increased from the earlier-typical 40 hours, to more than 60 hours (stretching to even 80 hours in some industries).

Best Buy's Work Culture

Over the years, Best Buy had evolved a demanding work culture that glorified long hours. Rewards and recognition went to employees who were willing to give work priority over personal life, and there was little scope for work/life balance. Reportedly, a Best Buy manager once gave a recognition plaque to an employee "who turns on the lights in the morning and turns them off at night"...

The "Results Only" Work Environment

In 2003, Cali Ressler (Ressler) and her colleague at Best Buy's HR department, Jody Thompson (Thompson), got together unofficially to try and develop a new workplace program that would stem the constantly increasing attrition at the company. They came up with the program that later came to be known as ROWE.

However, they realized that the program was too radical for it to get approval from the top management. Therefore, they waited until the right opportunity came up to implement it. Eventually, the program was launched clandestinely at two corporate departments (the properties and communications divisions) where the attrition was exceptionally high...

The Working of Rowe

ROWE was a system which worked on the principle that productivity was the cornerstone of work. Working did not mean being at office. Rather, work was done when results were accomplished. ROWE's vision was that productivity at work should be measured by output and not by the number of hours spent on the work...

Not an Easy Road

Implementing ROWE was not easy. In the first place, it required a complete overhaul of people's attitudes towards work. Traditionally, employees were programmed to think that displaying a commitment to work by coming in early and leaving late could ensure them success. But this was eliminated as a criterion for judging performance under ROWE. Several employees who were working with ROWE admitted to having misgivings about whether they would be able to cope with the new system. Some people reportedly felt confused about what would be expected from them at the workplace. Staying longest at the office was no longer a guarantee of success...

5 Case Studies About Successful Change Management

Because times change and organizations evolve, virtually all companies that wish to keep their doors open for a long time need to successfully undergo organizational change sooner or later.

Generally speaking, change management refers to switching up the way things are done at an organization.

Whether that means reallocating the distribution of resources or budgets or changing processes altogether depends on the organization's specific situation.

So how can you ensure your change management initiatives are successful? Here are five real-world case studies that should provide some insight into how strong companies pivot successfully.

01. Nokia

In July 2012, shares of Nokia were trading below $2 — far off from their highs of nearly $60 in 2000 and nearly $40 in 2007. At the time of this writing, the shares have somewhat rebounded, up more than 300% after having climbed into the $6.50 range.

At the turn of the millennium, Nokia was one of the world's largest suppliers of mobile devices. This, of course, was before smartphone mania swept the nation (and the world).

Fast forward to 2010, and while Nokia remained profitable, the writing was on the wall. It was only a matter of time before Nokia phones, as they currently existed, would remain relevant.

Because Apple beat Nokia to market with its iPhone, the latter company missed its opportunity to lead the smartphone revolution.

Understanding this all too well — Nokia has reinvented itself time and again in its 150-plus-year history — the Finland-based company hired a new CEO to take the reins.

Ultimately, Nokia's new management team decided to sell the company's struggling phone division to Microsoft.

Like it has done so many times over the years (how else does a company founded in 1865 become the worldwide leader in mobile devices in the 1990s?), Nokia has changed the focus of its operations once more.

Currently, the company is building network and mapping technologies, among other initiatives.

02. Coca-Cola

When Asa Griggs Candler founded The Coca-Cola Company in the late 1800s, there was no way he knew his company would one day be valued at upwards of $180 billion. That's a lot of money for a business that sells soft drinks.

But Coca-Cola didn't become the powerful force it is today by sheer chance.

An illustration: In the 1980s, Coke's biggest rival, Pepsi, was aggressively targeting it. This caused Coca-Cola to reevaluate its offerings. Eventually, the company decided to concoct a new, sweeter soda. They called it simply New Coke.

Unfortunately, the public didn't take too kindly to the new beverage. But Coke's executives didn't let the mishap derail their success.

Quickly, management decided to pull New Coke and replace it with the older, established formula. Lo and behold, Coca-Cola Classic was born, and Coke maintained its market dominance.

Just as quickly as Coke changed to accommodate its customers' sweeter palates, it changed direction again when it realized it made the wrong move.

But that’s not the only instance where Coca-Cola listened to its customers and enacted change. Again, how is a company primarily known for selling sugary drinks valued at $180 billion in 2016?

Coke doesn’t only sell sweetened carbonated beverages. In fact, the beverage king sells more than 500 brands to customers in over 200 countries.

Today, many of its offerings — like DASANI, vitaminwater, and Evian — are even considered healthy drinks.

In other words, Coca-Cola has consistently strived to diversify its product portfolio and expand into new markets. By and large, Coke has succeeded in these efforts.

03. Toyota

In the aftermath of World War II, the Japanese auto market was nearing destruction. On the other hand, American car manufacturers like Ford and General Motors were crushing it.

Understanding that something major had to be done in order to keep pace with their Western rivals, Taiichi Ohno, an engineer at Toyota, convinced his managers to implement the just-in-time approach to manufacturing.

Instead of having to order and store an insane amount of heavy equipment and machinery, Ohno thought it made a whole lot more sense to receive supplies the moment they were ready to be used.

This way, Toyota wouldn't have to waste any space, time, money, or energies dealing with supplies that would just collect dust until they were needed.

Additionally, Toyota would have more cash on hand to pursue other opportunities; it wouldn't be tied up in inventory.

Toyota implemented Ohno's suggestions, opting to take the just-in-time approach to manufacturing. Though it didn't happen overnight, Ohno's recommended changes ended up transforming the Japanese automaker for the better.

Ohno ended up becoming an executive.

04. GE

When Jack Welch assumed the top position at General Electric in 1981, he inherited a company that had a market value of $12 billion — certainly a modest number, by today's standards. By the time he left in 1998, GE was worth $280 billion.

While leading GE, Welch was charged with the task of making the conglomerate better by any means necessary. With his gut telling him that his company was due for a complete overhaul, Welch decided to implement Six Sigma at GE in 1995.

Six Sigma is a methodology that aims to reduce defects and errors in all processes, including transactional processes and manufacturing processes. Organizations that use Six Sigma test their processes again and again to make sure that they are as close to perfect as possible.

Five years after Welch's decision to implement Six Sigma, GE had saved a mind-blowing $10 billion.

Welch claimed to have spent as much as half of his time working on people issues.

By assembling the right team and ingraining them with the right management philosophies, Welch successfully oversaw the transformation of GE from a relatively strong company to a true international juggernaut.

05. Amazon

Ever since Amazon went online in 1995, the e-commerce juggernaut has undergone a slew of changes — despite being led by the same man, Jeff Bezos, during the ensuing two-plus decades.

When the Seattle-based company first launched its website, all it sold was books. Gradually, Bezos and his team expanded Amazon's offerings to include things like CDs and DVDs.

But Amazon never really stopped changing the inventory it sold.

Bezos said he wanted his store to become the world's largest, so he worked hard toward meeting that goal — whether that meant offering new products, launching Amazon Prime, launching Amazon Instant Video ... the list goes on and on.

Today, Amazon sells more than 200 million products to customers all over the world.

Though for years, Amazon's detractors insisted that the company wasn't making enough profits to justify any investments, that all changed in 2015 when the company posted back-to-back successful quarters.

The market responded kindly, and today, Amazon boasts a market valuation of more than $440 billion.

But Bezos isn't anywhere close to done yet. There are talks of Amazon delivering packages via drone.

And if that wasn't enough, Bezos recently said he hopes Amazon can produce as many as 16 feature films each year. In 2017, Bezos & his team took home three Oscars.

Indeed, it appears as though Amazon is a company that can be characterized as changing constantly. To date, they've been successful, probably because the company is always putting its customers first.

A Case Study of Not Letting "Rules" or "Process" Own Your Company

If we look back in history, we can reference an example from Johnson & Johnson's unfortunate situation in 1986 of Tylenol caplets being laced with poison. This wasn't the result of an employee making a bad decision, but they still had a very traumatic and tragic situation to handle that required people within the company to make decisions quickly—in real time. They didn't pull out their policies and procedures book and look to it to guide their every move. Even though the more recent company examples discussed in my prior blog weren't about life and death, there's still a lot to learn from what J&J did right. So what did they do that we can learn from today?

- Instead of blaming and pointing fingers, leaders at J&J recognized what this could mean from a public perception perspective: That Tylenol was unsafe and that J&J just wanted their best-selling brand to stay on top of the competition.
- Recognizing this, J&J leaders took the *time to think* before reacting. Instead of turning to a book of rules about public service announcements or crisis management or blaming other entities for this very unfortunate and sad situation that took the lives of seven people, they instead took positive action that won the company accolades and support.
    - The CEO selected one executive to head a crisis team to investigate (now!) what was happening.
    - Instead of reacting, the executive team immediately acted to first set goals to stop anyone else from dying, to provide assistance to the victims, and to restore Tylenol's credibility.
    - Instead of delivering a cold message to the public, they shared that they would be working with authorities hand-in-hand, which they did.
    - Instead of approaching this from a money-driven, rule-based and fear-based perspective, they had the guts to make what was probably one of the biggest decisions of its kind on record: They pulled Tylenol from all shelves

(approximately 31m bottles). Before this incident, a product recall this big had never happened. It cost the company $100-$150m minimum.

- J&J offered replacement bottles in the form of Tylenol tablets if desired.
- Instead of a well-orchestrated and stiff message, the company created a strong message that the CEO delivered to the public in a way that showed both heart and soul. In that message, the CEO outlined much of the above and shared the tangible actions J&J was taking as a company as well as with authorities to find out what happened, promising to take corrective action, all while remembering, too, the individuals who had died and their families. And as is the case with any television and radio marketing campaign, the air time cost them a great deal of money.
- J&J later reissued Tylenol with tamper-proof packaging (which has since become the norm across this and other industries as a basic packaging technique).

In the end, J&J regained the public's confidence (when marketers were predicting they would never recover), sales returned to the prior (and even higher) levels, and the company continued to be a leader in its industry.

Remember: If you want higher levels of employee engagement and productivity, *strategically* invest the time, energy, and money into creating a framework for your people so they make good decisions, and then empower them to make those good decisions. In short, teach them to be leaders.

Case Study: Work-Out, Productivity Improvement

This Case Study summarizes a year-long engagement during which Gagnon Associates helped a global client significantly improve productivity by using the GE Work-Out Process:

The Company

A 700MM+ worldwide maker of large-scale mining machinery and equipment.

The Problem

Caught between low demand growth for original equipment and emerging new competition, the Company struggles with legacy issues of high costs and underutilization, while lagging industry counterparts on key measures such as profitability, inventory turns, quality, etc. New CEO seeks to improve the Company's standing and financial position by launching a global

change process focused on productivity improvement and cost-effectiveness in all aspects of the business.

The Approach

A former client of Gagnon Associates, the CEO requests one of its trademark services: conducting a GE Work-Out-style change process, dubbed "The 30/69/90 Process." Every 90 days for over a year, the Company assembles and charters four global teams, each focused on some aspect of a critical productivity issue: inventory turns, product build/rebuild cycle times, product quality, etc. During intensive three-day problem-solving sessions, designed and facilitated by Gagnon Associates consultants, teams analyze and develop recommendations for addressing these issues. At session close, all teams present recommendations to the Company's Executive Committee who must evaluate and render decisions on the spot. Implementation begins immediately and progress is checked for each team at 30 and 60 days. Project completion and evaluation takes place at the 90-day checkpoint. Teams are disbanded as soon as their work is completed.

The Results

Over slightly more than a year, four “waves” of teams are chartered and fielded. Results highlights include: doubled inventory turns in one key product area; reductions of from 30% to 60% in “build,” “rebuild” and “repair” cycle-times for key machinery sub-assemblies and motors; and reduction in slow-moving parts inventory equivalent to 6.2 million dollars.

Given its success, the Company makes the commitment to continue the “30/60/90” process and make it an ongoing part of its working culture. “Real-time” training of client participants by Gagnon Associates during year one builds the nucleus of an internal capability to conduct “30/60/90” sessions. Company appoints internal, worldwide “30/60/90” Program Manager and takes over management of the change process for year two and beyond.

Proof That Positive Work Cultures Are More Productive

Too many companies bet on having a cut-throat, high-pressure, take-no-prisoners culture to drive their financial success.

But a large and growing body of research on positive organizational psychology demonstrates that not only is a cut-throat environment harmful to productivity over time, but that a positive environment will lead to dramatic benefits for employers, employees, and the bottom line.

Although there's an assumption that stress and pressure push employees to perform more, better, and faster, what cutthroat organizations fail to recognize is the hidden costs incurred.

First, health care expenditures at high-pressure companies are nearly 50% greater than at other organizations. The American Psychological Association estimates that more than $500 billion is siphoned off from the U.S. economy because of workplace stress, and 550 million workdays are lost each year due to stress on the job. Sixty percent to 80% of workplace accidents are

attributed to stress, and it's estimated that more than 80% of doctor visits are due to stress. Workplace stress has been linked to health problems ranging from metabolic syndrome to cardiovascular disease and mortality.

The stress of belonging to hierarchies itself is linked to disease and death. One study showed that, the lower someone's rank in a hierarchy, the higher their chances of cardiovascular disease and death from heart attacks. In a large-scale study of over 3,000 employees conducted by Anna Nyberg at the Karolinska Institute, results showed a strong link between leadership behavior and heart disease in employees. Stress-producing bosses are literally bad for the heart.

Second is the cost of disengagement. While a cut-throat environment and a culture of fear can ensure engagement (and sometimes even excitement) for some time, research suggests that the inevitable stress it creates will likely lead to disengagement over the long term. Engagement in work — which is associated with feeling valued, secure, supported, and respected — is generally negatively associated with a high-stress, cut-throat culture.

And disengagement is costly. In studies by the Queens School of Business and by the Gallup Organization, disengaged workers had 37% higher absenteeism, 49% more accidents, and 60% more errors and defects. In organizations with low employee engagement scores, they experienced 18% lower productivity, 16% lower profitability, 37% lower job growth, and 65% lower share price over time. Importantly, businesses with highly engaged employees enjoyed 100% more job applications.

Lack of loyalty is a third cost. Research shows that workplace stress leads to an increase of almost 50% in voluntary turnover. People go on the job market, decline promotions, or resign. And the turnover costs associated with recruiting, training, lowered productivity, lost expertise, and so forth, are significant. The Center for American Progress estimates that replacing a single employee costs approximately 20% of that employee's salary.

For these reasons, many companies have established a wide variety of perks from working from home to office gyms. However, these companies still fail to take into account the research. A Gallup poll showed that, even when workplaces offered benefits such as flextime and work-from-home opportunities, engagement predicted wellbeing above and beyond anything else. Employees prefer workplace wellbeing to material benefits.

Wellbeing comes from one place, and one place only — a positive culture.

Creating a positive and healthy culture for your team rests on a few major principles. Our own research (see here and here) on the qualities of a positive workplace culture boils down to six essential characteristics:

- Caring for, being interested in, and maintaining responsibility for colleagues as friends.
- Providing support for one another, including offering kindness and compassion when others are struggling.
- Avoiding blame and forgive mistakes.
- Inspiring one another at work.
- Emphasizing the meaningfulness of the work.
- Treating one another with respect, gratitude, trust, and integrity.

As a boss, how can you foster these principles? The research points to four steps to try:

1. Foster social connections. A large number of empirical studies confirm that positive social connections at work produce highly desirable results. For example, people get sick less often, recover twice as fast from surgery, experience less depression, learn faster and remember longer, tolerate pain and discomfort better, display more mental acuity, and perform better on the job. Conversely, research by Sarah Pressman at the University of California, Irvine, found that the probability of dying early is 20% higher for obese people, 30% higher for excessive drinkers, 50% higher for smokers, but a whopping 70% higher for people with poor social relationships. Toxic, stress-filled workplaces affect social relationships and, consequently, life expectancy.

2. Show empathy. As a boss, you have a huge impact on how your employees feel. A telling brain-imaging study found that, when employees recalled a boss that had been unkind or un-empathic, they showed increased activation in areas of the brain associated with avoidance and negative emotion while the opposite was true when they recalled an empathic boss. Moreover, Jane Dutton and her colleagues in the CompassionLab at the University of Michigan suggest that leaders who demonstrate compassion toward employees foster individual and collective resilience in challenging times.

3. Go out of your way to help. Ever had a manager or mentor who took a lot of trouble to help you when he or she did not have to? Chances are you have remained loyal to that person to this day. Jonathan Haidt at New York University's Stern School of Business shows in his research that when leaders are not just fair but self-sacrificing, their employees are actually moved and inspired to become more loyal and committed themselves. As a consequence, they are more likely to go out of their way to be helpful and friendly to other employees, thus creating a self-reinforcing cycle. Daan Van Knippenberg of Rotterdam School of Management shows that employees of self-sacrificing leaders are more cooperative because they trust their leaders more. They are also more productive and see their leaders as more effective and charismatic.

4. Encourage people to talk to you – especially about their problems. Not surprisingly, trusting that the leader has your best interests at heart improves employee performance. Employees feel safe rather than fearful and, as research by Amy Edmondson of Harvard demonstrates in her work on psychological safety, a culture of safety i.e. in which leaders are inclusive, humble, and encourage their staff to speak up or ask for help, leads to better learning and performance outcomes. Rather than creating a culture of fear of negative consequences, feeling safe in the workplace helps encourage the spirit of experimentation so critical for innovation. Kamal Birdi of Sheffield University has shown that empowerment, when coupled with good training and teamwork, leads to superior performance outcomes whereas a range of efficient manufacturing and operations practices do not.

When you know a leader is committed to operating from a set of values based on interpersonal kindness, he or she sets the tone for the entire organization. In *Give and Take*, Wharton professor Adam Grant demonstrates that leader kindness and generosity are strong predictors of team and organizational effectiveness. Whereas harsh work climates are linked to poorer employee health, the opposite is true of positive work climates where employees tend to have lower heart rates and blood pressure as well as a stronger immune systems. A positive work climate also leads to a positive workplace culture which, again, boosts commitment, engagement, and performance.

Happier employees make for not only a more congenial workplace but for improved customer service. As a consequence, a happy and caring culture at work not only improves employee well-being and productivity but also improved client health outcomes and satisfaction.

In sum, a positive workplace is more successful over time because it increases positive emotions and well-being. This, in turn, improves people's relationships with each other and amplifies their abilities and their creativity. It buffers against negative experiences such as stress, thus improving employees' ability to bounce back from challenges and difficulties while bolstering their health. And, it attracts employees, making them more loyal to the leader and to the organization as well as bringing out their best strengths. When organizations develop positive, virtuous cultures they achieve significantly higher levels of organizational effectiveness — including financial performance, customer satisfaction, productivity, and employee engagement.

CREATIVE PRODUCTIVITY AN ORGANIZATIONAL STUDY

"The Team Accountability and Governance program works because of the sustainability. It's a long term solution. Achieving what I wanted to achieve for my team is possible. Team

Accountability and Governance is not a magic bullet: it's work. You have to put the time in if you want to make the change, but it's worth it. Shifting the culture of your team is a big commitment, it's not quick and easy. But it's going to make a difference. It works. You can improve your work-life balance by committing to this." – Former Area Director of Finance, Global Hospitality Chain

Customer

In 2016, an Area Director of Finance for a global hospitality chain and her team were responsible for managing the finances for all US East Coast hotels. This global hospitality chain's Regional Finance Team was responsible for 28 hotels and their internal finance controls, with goals around profits, balance scorecards, internal controls, risk assessment, and compliance.

Challenge

Some members of the finance team were experiencing higher levels of stress and overwhelm, resulting in an increased turnover rate. Feedback from current employees, along with those exiting, was that the demands of their roles were increasing, and they didn't feel there was ample time to focus on the priority activities. They often felt caught up in details without an understanding of the overall company strategy, and the feeling around the department was a general sense of frustration and the inability to be productive.

The team leader was aware that their team was inadvertently creating a negative impact on each other's productivity without even realizing it. Confusing communications, frequent interruptions, and unproductive meetings were some of the main challenges. The team lead was in search of a solution that would sustainably shift current unproductive habits and improve the culture while helping their team find an improved sense of control, increased focus on the priority tasks, and find improved work-life balance in their jobs, resulting in greater retention.

Solution

The team leader had previously taken McGhee Productivity Solutions' (MPS) Take Back Your Life! (TBYL) course and reached out to MPS CEO Sally McGhee, to find a solution to their

challenges that was more systemic and sustainable for their entire team than an Individualized TBYL course. The team lead felt that their employees would benefit more from a training that would permanently impact the way the entire team collectively processed and standardized their overall workload, information processing, and communication styles. This would help them achieve clear alignment on task completion moving forward.

MPS introduced the team leader to a Senior MPS Consultant who guided the finance team through a six-month Team Accountability and Governance Program. This program is a team-focused solution to define standards and protocols related to productivity, communication, and technology. It specifically helps teams create accountability, increase productivity, and achieve higher percentages of their goals and objectives.

Results

Following the six-month program, the team reported that it is more aligned. During the creation of standards and protocols, awareness was created around the challenges the team was facing and communication was improved.

According to the productivity survey, conducted by McGhee Productivity Solutions, the team found themselves 31% more effectively using their time at work, 27% more focused on what was important to their role and 11% more in control at the end of each workday.

A culture of productivity has been created in the team and there has been an increase in alignment, energies, and attitudes that are positively impacting their work environment.

- 11% increase in sense of control
- Improved communication due to easy-to- implement protocols
- 27% increase in focusing on getting the right things done

Interpretative case studies on agile team productivity and management

Abstract

Context

The management of software development productivity is a key issue in software organizations, where the major drivers are lower cost and shorter time-to-market. Agile methods, including Extreme Programming and Scrum, have evolved as “light” approaches that simplify the software development process, potentially leading to increased team productivity. However, little empirical research has examined which factors do have an impact on productivity and in what way, when using agile methods.

Objective

Our objective is to provide a better understanding of the factors and mediators that impact agile team productivity.

Method

We have conducted a multiple-case study for 6 months in three large Brazilian companies that have been using agile methods for over 2 years. We have focused on the main productivity factors perceived by team members through interviews, documentation from retrospectives, and non-participant observation.

Results

We developed a novel conceptual framework, using thematic analysis to understand the possible mechanisms behind such productivity factors. Agile team management was found to be the most influential factor in achieving agile team productivity. At the intra-team level, the main productivity factors were team design (structure and work allocation) and member turnover. At the inter-team level, the main productivity factors were how well teams could be effectively coordinated by proper interfaces and other dependencies and avoiding delays in providing promised software to dependent teams.

Conclusion

Teams should be aware of the influence and magnitude of turnover, which has been shown negative for agile team productivity. Team design choices remain an important factor impacting team productivity, even more pronounced on agile teams that rely on teamwork and people factors. The intra-team coordination processes must be adjusted to enable productive work by considering priorities and pace between teams. Finally, the revised conceptual framework for agile team productivity supports further tests through confirmatory studies.

Innovating for Growth Under New Leadership

Challenge: The new Chairman & CEO of a successful mid-market electronics manufacturing company was at a turning point. The company had established aggressive growth targets

despite a major downturn in their traditional market. In order to succeed he needed three division presidents accustomed to operating independently to significantly alter their working style. These executives, accustomed to working autonomously, were now being asked to work together as a team and respond collaboratively to the dramatically changing business environment. The Chairman & CEO knew he had to take a different approach to strategic planning after meetings he had led broke down because of arguments three times within the year.

How we helped: Rather than taking the "same old" approach to strategic planning that had led to the breakdowns, it was time to do something different. Collaborating with the CEO, we built on their planned visit to a major client event to design and lead a strategic thinking and planning retreat. However rather than focus on "the plan," we focused on creating a safe environment to uncover the elephants in the room that were underlying the conflicts. To the executives' surprise, they realized that the real issue behind the breakdowns was the need to face the unaddressed issues of leadership transition and the need to work as a team. Once the conversation happened, the newly forming executive team quickly agreed upon a shared vision and mission, and a specific plan for growth that would enable them to extend their existing technological strengths into completely new markets.

Results: Four years after the retreat, the CEO told us that the story of the retreat and the bold decisions and commitments made that day had become “company lore.” He related that that the company’s consistent over-achievement of its ambitious growth objectives over subsequent years could be traced to the decisions and commitments that were made at the retreat. The executive team became far more cohesive and momentum on their journey of growth dramatically increased. Company revenue had increased nearly seven-fold over four years, attesting to the lasting impact of our work together. Ten years after the retreat, company revenues had increased more than ten times.

Growing an R&D Organization in China

Challenge: A leading multinational consumer products company had highly aggressive plans for expanding its business in China ten-fold in 7 years. This included launching an array of products worth tens of millions of dollars within the year. They needed to accelerate launch plans while doubling their technical talent in the highly competitive Chinese labor market.

They also had to move forward on plans to reorganize the Chinese R&D unit, and to relocate to a new city to be near the marketing team.

The executive team of the Chinese R&D unit had agreed to the ambitious goals and timelines. However, they had missed several key milestones, and their launch targets were at serious risk. The head of Global R&D was mystified by the slow progress He needed to take decisive action to prevent a “derailment” of this division and restore the critical momentum they needed to meet their objectives.

How we helped: We identified several critical issues that were distracting the Chinese R&D unit and contributing to the delayed results. For a variety of reasons, members of the leadership team had been reluctant to share challenges they faced with each other and the Global Head. This led to a feeling of isolation among the leaders that was preventing them from working together to identify and resolve roadblocks to progress.

Members of the team were clearly surprised and relieved to discover that they were not alone in feeling the pressure of their many challenges. The ability to uncover and express their concerns while “maintaining face” enabled them to discover new ways to overcome roadblocks and get back on track.

Results: The head of Global R&D subsequently told us that our work together “served as a catalyst that removed inertia.” This resulted in “new thinking, which prompted us to new action.” Among these were plans they implemented to:

- Accelerate talent acquisition in the competitive employment market
- Close a dysfunctional manufacturing facility that had been sucking away time and resources
- Reassign key talent to ensure that critical development projects were put back on the fast track

The revival of momentum and velocity in their projects enabled the group to realize millions of dollars in previously at-risk top and bottom line growth.

Superbrands case studies: Coca-Cola A Success Story

Market

Coca-Cola is a truly global brand. Not only is it at the top of Interbrand's global brand league and been consistently voted a Superbrand, it is the best selling FMCG brand in Great Britain. Diet Coke too is a major brand in its own right. It is the UK's second most popular soft drink brand and eighth biggest grocery brand.

Coca-Cola aims to refresh consumers with their choice of non-alcoholic ready-to-drink beverages and has a broad range of soft drink brands, including juices, waters and carbonated soft drinks. The Coca-Cola Company's products continue to perform well, displaying steady long term growth and are consumed over one billion times a day in over 200 countries.

While carbonated soft drinks account for over 47% of all UK soft drink sales, GB per capita consumption of soft drinks (194 8oz servings per person per year) is somewhat below other European consumers and significantly below that of US consumers (340 servings). However per capita consumption has grown by 20% in the last seven years (Source: Canadean 2001).

Achievements

'Coca-Cola' is the most recognised trademark in the world, with 94% global recognition. It is also commonly thought that it is the second most widely understood word in the world, after 'OK'.

Beyond doubt Coca-Cola is the most valuable brand on the planet, worth an estimated US$72.5 billion in Interbrand's global brand league. The strength of this global success lies in the relevant local connections that Coca-Cola builds with its consumers every day. In 1982 Coca-Cola launched Diet Coke, which is now the most popular diet soft drink in the world.

All of this has been achieved through an extremely successful combination of global distribution and powerful local marketing. The drink is distributed to more than 200 countries and its strategy is based on the aim that nobody should be more than a few minutes away from an opportunity to buy a Coke. Supporting this, is one of the biggest and most widespread bottling and distribution networks in the world, sending Coca-Cola to all corners of the globe.

Its marketing is legendary, investing in one of the first-ever global advertising campaigns with the 1979 ad 'I'd like to buy the world a Coke'. Sponsorship of major global sporting events such

as the Olympic Games and the FIFA World Cup, ensures that the brand not only taps into national passions for sport, but is present when nations come together. The progressive marketing strategy of Coca-Cola is based on a simple message -- that it wants to refresh, surprise and inspire everyone who touches the brand.

History

Coca-Cola was invented in 1886 by John Styth Pemberton, a pharmacist in Atlanta, Georgia. He brewed the syrup in a brass pot in his backyard. Even at this early stage, the power of branding was important, with Pemberton's partner, Frank M Robinson, naming the dark brown liquid 'Coca-Cola' because he thought the two Cs would work well in advertising. Having laid the foundations for the product and the brand, the two sold their interests to Atlanta businessman, Asa G Candler in 1888. The famous signature 'flourish' of Coca-Cola was registered as a trademark in 1893. Candler was a marketing genius and ensured that the Coca-Cola trademark appeared on countless products, from clocks to glass chandeliers. By 1895, thanks to Candler's skill, Coca-Cola was available in every US state.

The design for the famous Coca-Cola glass 'Contour' bottle was created in 1915. It was done to protect the brand from a growing army of imitators, determined to cash in on its success. The company wanted to communicate to consumers that there was only one authentic, Coca-Cola. Designers were given the brief to create a bottle 'which a person will recognise as a Coca-Cola bottle, even if felt in the dark. The bottle should be shaped that, even if broken, a person could tell what it was'.

In 1919 the Candler family sold The Coca-Cola Company to Atlanta banker Ernest Woodruff and a group of businessmen. In 1923 Ernest's son Robert Woodruff, elected president of the company, decreed 'Coca-Cola should always be within an arm's reach of desire', setting down a principle which remains central to the company's distribution strategy today.

The distribution expertise of Coca-Cola has been built on the backbone of its bottling operations. The first bottling device was set up by a shopkeeper in 1894, allowing him to trade crates of Coke up and down the Mississippi river. The first major bottling plant was inaugurated soon after, and from 1926 bottling operations spread abroad.

By the outbreak of World War II, the drink was being bottled in over 44 countries. The war helped boost the brand's international distribution and profile, as US soldiers posted abroad demanded and were sent Coke in vast quantities.

In 1982 Diet Coke was launched. This was the first brand extension of the Coca-Cola trademark and an instant success: by 1984, it was the third biggest soft drink in the US and by 1990 the second biggest soft drink in the UK.

Product

The Coca-Cola product range includes Coca-Cola and Diet Coke along with additional flavour varieties such as Cherry Coke, caffeine-free Diet Coke, Diet Coke with Lemon and, in the US, Vanilla Coke.

As for the formula, there's very little to say. It is one of the most closely guarded secrets in the world.

Recent developments

Coca-Cola is continuously looking to deliver against consumer needs and uses consumer insights to help shape progressive new solutions to packaging and product offerings. In Great Britain, changing demographics and the growing number of two-person households, drove the 2002 launch of a new sized 1.25 litre bottle for Coca-Cola and Diet Coke.

June 2002 saw the launch of Diet Coke with Lemon. Developed with a taste specially formulated for the British public, it has performed extremely well since launch, already capturing a significant share of the market and showing a very high repeat purchase rate.

Promotion

The first-ever Coca-Cola advertisement was an oil cloth sign, bearing the phrase 'Delicious and Refreshing'. Since then the brand's slogans have developed from 'It's the real thing' in 1942 (used again in 1969) to 'Things go better with Coke' in 1963. There has also been 'Coke adds life' (1976), 'Have a Coke and a smile' (1979), 'Coke is it!' (1982), 'Always Coca-Cola' (1993), 'Coca-Cola Enjoy' (2000) and 'Life Tastes Good' (2001).

The 2002 advertising of Coca-Cola in Great Britain was based on specific British insights and was rated by consumers as some of the most enjoyable yet from the brand. The World Cup ad was an animated 'zero to hero' story of 'Leggsy', a three-legged boy who realises every football fan's dream of scoring the winning goal for England at the World Cup. In the Summer,'Mower Man' took an optimistic (and humorous) look at one man's spontaneous way of finding his perfect English summer dream.

The authentic Coca-Cola Contour bottle has always been a timeless design classic, but 2002 saw the resurgence of the bottle as a modern icon. In 48 sheet outdoor posters, the Coca-Cola Contour bottle took on a modern, highly sensuous look, with a series of slick images of the bottle's curves juxtaposed with the curves of the human body. Chilled glass bottles of Coke

have always had a place in the hands of trendsetters in bars and at events and parties all over the country.

As a leading marketer Coke continues to innovate with impactful promotions on a big scale that engage and appeal with broad consumer audiences. 2001's 'Music4You' was the biggest ever music promotion, run in conjunction with The Sun and News of the World newspapers. This opened up a massive range of music items and money-can't-buy experiences for consumers for which they collected tokens and made online bids.

In 2002, Coca-Cola linked with one of the most credible music magazines in Great Britain, NME, to launch an on-pack promotion offering thousands of gig tickets and 'access all areas' experiences to music fans.

Coke is a brand which also has the ability to work in ways which capture the imagination and bring a progressive feel to its activities. Christmas 2001 saw Coca-Cola unveil the record-breaking World's Biggest Advent Calendar on the side of Birmingham's Town Hall: the huge scale of the 3D calendar gave a sense of festive drama to the city centre, while themed events

brought the community together as each window came to life every day with music, fireworks and, on Christmas Eve, Santa appeared with 'real' snow.

The brand used its global link with Warner Brothers' Harry Potter films to 'Bring the magic of reading alive' -- a three-year worldwide partnership launched with the opening of 'Harry Potter and the Philosopher's Stone'. As part of this commitment, Coca-Cola in Great Britain pledged to distribute 300,000 books to schools and community libraries.

Coca-Cola has a long-standing heritage of supporting sport and in particular football, where the brand invests at every level of the game - from international tournaments right through to community and grassroots levels. In the global arena, Coca-Cola has sponsored every World Cup tournament since 1978 and has maintained an unbroken presence at every Olympic Games since 1928.

Coca-Cola regularly offers consumers the chance to do things they would never normally be able to: the FIFA World Cup 2002 activation saw Coca-Cola encouraging fans to 'Eat Football, Sleep Football, Drink Coca-Cola' through a multi-faceted programme of innovative marketing

activity - including bringing the FIFA World Cup Trophy to England for fans to touch and lift in a whirlwind one-day tour.

In a world first, Coca-Cola invited consumers to design a perimeter board ad to support the football teams out in Japan and Korea. The winning design from England - by a seven year old boy from Huddersfield - featured pitchside at all England's World Cup matches.

2001 saw a further strengthening of support from Coca-Cola of top level English domestic football in the signing of a three year deal to sponsor ITV1's The Premiership weekly football highlights programme.

With an eye on the future of football, the brand has created a number of major grass roots tournaments which encourage children to get out and enjoy playing the game - including the English Schools Football Association Coca-Cola English Schools Cup - the biggest tournament of its kind open to boys and girls under thirteen - and the Scottish Schools Football Association'Coca-Cola 7s', an U12s 7-a-side football tournament.

Diet Coke has a sexy heritage built from the 'Diet Coke Break' ads, starting with the hunky window cleaner now developed on to the lighthearted 'Taste the Moment' advertising campaign. Diet Coke in 2002 turned its bottles silver and invited consumers to take a chance at winning a 'Silver Spree' with a £100,000 spending spree up for grabs.

Brand values

Coca-Cola is renowned for being the world's biggest brand. In Great Britain, on average, it touches consumers over 50 times a day. The brand's personality has the values of an 'optimistic spirit, authenticity, leadership and sociability'. The taste of Coca-Cola, brings 'thirst-quenching and energising refreshment' when served 'ice-cold'.

Things you didn't know

 In 1995 Coca-Cola established The Coca-Cola Youth Foundation. The focus of the charity is to provide a positive contribution to the development of youngsters, helping them to achieve their full potential.

 Father Christmas, as we know him with red suit, long beard and jolly face, was first illustrated with those characteristics for a Coca-Cola advert back in the 1930s.

 Coca-Cola has been associated with the Special Olympics for over 24 years.

 Coca-Cola was a founder member of Tidy Britain Group (now ENCAMS), established in 1965 and had a long association with three key programmes -- National Spring Clean; People & Places and Eco-Schools. The current Sweeper Zone programme targets litter at and around major football clubs, with young people from the local community interacting with fans to raise awareness and improve the immediate environment.

 Since 1996 Coca-Cola has developed the Coca-Cola Valued Youth programme, a pupil tutoring scheme that meets the needs of secondary school students who need support to keep them in school. The project was expanded to include 3,000 pupils in 2002, and operates in eighteen local education authority areas.

Domino’s Case Study

Domino's Pizza, known for its extensive customization options, exemplifies the significance of supply chain management and its influence on career advancement and salary optimization strategies for HR professionals in global organizations. With a range of 50 ingredients and approximately 34 million possible combinations, Domino's offers a highly customizable menu. However, despite this variety, the company's supply chain follows a push concept, emphasizing delayed customization to maximize automation and production efficiency.

In Domino's supply chain, ingredients are sourced centrally from a singular provider, and the dough is prepared at dedicated supply chain centers. Cold storage facilities store most of the ingredients, while refrigerated trucks transport them to various stores. Vegetables are cut and stored, ready to be retrieved when orders are received. The dough is transported in calculated portions, and unique options like thin crust bread come pre-prepared. Domino's maintains

separate spaces and equipment for different ingredient variants, ensuring efficiency and quality control.

While the traditional push concept dominates Domino's supply chain operations until this point, the dynamic shifts when customers are presented with numerous customization options. The line between customer choices and operational standardization represents the Push-Pull Frontier. Domino's has successfully navigated this frontier by combining elements of both push and pull concepts. Push offers economies of scale and high production rates, while pull satisfies customer preferences and reduces inventory costs. This strategic combination allows Domino's to provide extensive customization options while maintaining operational efficiency.

Domino's ability to consistently deliver pizzas within 30 minutes across countries and regions has distinguished them in the pizza store business. Achieving this relies on their flexible supply chain. Preparing the dough and base sizes in advance, having pre-cut veggies and cheese, and utilizing a conveyor-converted oven minimize preparation time. Forecasting tools enable accurate predictions of customer demand, facilitating efficient ingredient allocation. The

vertically integrated supply chain and localized sourcing contribute to the reliability and flexibility of Domino's operations.

For HR professionals in global organizations, understanding the impact of effective supply chain management, such as Domino's example, can be instrumental in career advancement and salary optimization strategies. The ability to streamline processes, minimize costs, and consistently meet customer expectations creates opportunities for professional growth. Emphasizing efficiency, innovation, and customer-centricity within supply chain operations can position HR professionals as valuable contributors to organizational success.

In conclusion, Domino's Pizza's push-pull supply chain strategy demonstrates the critical role of supply chain management in career advancement and salary optimization for HR professionals in global organizations. By effectively balancing operational standardization and customer customization, organizations can maximize productivity, reduce costs, and enhance customer satisfaction, leading to career growth and improved compensation opportunities for HR professionals.

GLOBAL SUCCESS STORY OF GE

A CEO has different tasks in different cycles. Some CEOs are founders and builders. Others have the luxury of managing momentum through a stable economy or a period when business models aren't being disrupted. My task was different: remaking a historic and iconic company during an extremely volatile time.

I led a team of 300,000 people for 6,000 days. I led through recessions, bubbles, and geopolitical risk. I saw at least three "black swan" events. New competitors emerged, business models changed, and we ushered in an entirely new way to invest. But we didn't just persevere; we transformed the company. GE is well positioned to win in the future.

The changes that took in the world from 2001, when I assumed the company's leadership, to 2017 are too numerous to mention. The task of the CEO has never been as difficult as it is today. In that vein, my story is one of progress versus perfection. The outcomes of my decisions will play out over decades, but we never feared taking big steps to create long-term value.

For the past 16 years GE has been undergoing the most consequential makeover in its history. We were a classic conglomerate. Now people are calling us a 125-year-old start-up—we're a digital industrial company that's defining the future of the internet of things. Change is in our DNA: We compete in today's world to solve tomorrow's challenges. We have endured because we have the determination to shape our own future. Although we're still on the journey, we've made great strides in revamping our strategy, portfolio, global footprint, workforce, and culture. GE is famous for creating and religiously implementing processes for managing virtually everything we do. The task of transformation is no different. But my aim in this article—written on the eve of my announcement to transition the leadership of the company—is to share what I've learned more broadly about how to lead a giant organization through massive changes. There are several lessons.

First, you must be disciplined and focused. You need a point of view. Your initiatives should be interconnected—and it's the leader's job to connect the dots for everyone in the organization. All the major initiatives we implemented during my tenure as CEO were aimed at making GE one of the 21st century's most valuable technology-driven industrial companies—one that can grow; one that can generate greater productivity for ourselves and our customers.

The second lesson concerns the journey a leader must embark on before undertaking a transformation. You have to go through a period of rewiring your brain—getting yourself to the point of profoundly believing that the world is changing and that the survival of your company depends on either anticipating the change or being in the vanguard of those reacting to it.

Third, you have to get people in your organization to see the need for change as existential. Fourth, you have to be all in—you must make a bold, sustained commitment to the transformation.

Fifth, you must be resilient. I subscribe to the words of the great philosopher Mike Tyson, who said, "Everyone has a plan until they get punched in the mouth." It is so difficult to predict events. It is difficult to sustain transformation during tough times, but it's the only way to create a better future.

Sixth, during the transformation you have to listen and act at the same time. You need to allow new thoughts to constantly come in, and you need to be open to the reality that your organization will have to pivot when it learns something new, while still having the courage to push people forward.

Finally, you must embrace new kinds of talent, a new culture, and new ways of doing things. We have hired tens of thousands of people—managers at all levels; software developers and engineers; data scientists; and folks in sales, marketing, HR, and other functions—many of them outside the United States. In 2001, 43% of our workforce was outside the United States; today 65% is.

Before delving into each lesson, I'll describe the transformations we've undertaken.

The Transformations

During my time at the helm, we did five things that were transformative. We radically changed our portfolio by focusing on our core industrial businesses and divesting slower-growth, low-tech, and nonindustrial businesses (except for the portion of GE Capital that supports our industrial businesses). We reestablished GE as a technology company: I more than doubled our investment in R&D. We became a truly global company, with a strong local presence in the 180 countries we serve. We became a major force in the technologies that will drive

productivity in this era: the industrial internet and additive manufacturing. And we made GE a vastly simpler company in terms of how it runs—it now has much less administration and shorter

cycle times, is more decentralized, and is more willing to let people deep in the organization who are close to their markets take risks without having to undergo multiple reviews.

All these transformations dovetailed to a certain extent. They were intended to focus us on creating value for customers by making our core businesses leaner, faster, more technical, and more global, and putting them on the cutting edge of the digital age. They have positioned the company to be more valuable over time.

Even before becoming CEO, I believed that the company couldn't simultaneously be good at media, pet insurance, and making jet engines. We had come out of an era when many at GE believed that a good manager could manage anything. I didn't buy that. I thought that companies—and business leaders—were good at certain things.

When I became CEO, the world was changing. The 9/11 tragedy had a dramatic impact on several of our businesses. The power and pension bubbles—big drivers of our earnings growth in the late 1990s—came to an abrupt end. And in the background, the Enron saga made transparency a priority for every company.

Our portfolio was simply too broad and too opaque. One business had no idea what another business did. No one in leadership really understood the GE Capital balance sheet. And many of our industrial businesses had commoditized.

Another theme of our transformations was the desire to use our scale to drive growth and efficiency. I have long felt that nothing is worse than a big company that can't grow organically. I never wanted GE to be a $100-billion-plus company that had flatlined on organic growth. We conceptualized the GE Store, a global knowledge exchange. The idea is to build capabilities that can be shared across our businesses: horizontal strengths that can be harnessed to create scale-based innovation and dominant global distribution.

Connected to that were my beliefs that the days of 4% annual growth in the developed economies were over and that the forces of economic nationalism would only gain strength. When GDP is growing by 4% a year, no business is hard. When GDP is growing by 1% a year, no business is easy, so you've got to be percolating new and different ideas. That meant figuring out how to innovatively leverage technologies that would allow us and our customers to achieve leaps in productivity. And it meant getting into faster-growth parts of the world at scale.

Finally, simplification was all about reallocating resources to fund more growth and identify and solve customers' problems better. When companies are slow, it is typically a sign that their costs are in the wrong place. One of the reasons big companies fail is that they don't think they can afford something and aren't willing to free up the resources to make bold moves. We are investing heavily in making GE a digital industrial company. Last year we put about $4 billion into developing our analytics software and machine-learning capabilities and another $2 billion into building a leadership position in additive-manufacturing equipment and services—an emerging field that is going to revolutionize manufacturing. We had to run leaner in other places to make those investments.

Now I'll turn to what I've learned about leading transformation

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Be Disciplined

The leader has to be disciplined about nesting initiatives within one another—showing how each one fits with the rest—and staying away from new ideas that don't fit. For example, we couldn't do digital industrial until we'd focused the portfolio, made the right investments in technology—which led to a huge backlog of service agreements—and simplified the culture. When we talk about becoming a digital industrial company and deepening our global presence, we mean making the portfolio deeper, not broader.

We're now in the seventh year of our big digital-industrial initiative. To run this play, we've had to have a constancy of purpose for a long period of time. It's not a flavor of the month. We have hired thousands of people and invested billions in technology.

If you look at my calendar, you'll see that I was tightly aligned with the five transformations. How did I figure out which aspects of them to devote my time to? Whichever needed the most change. I had to provide ballast against stagnation.

In 2011 we launched our Global Growth Organization—a group charged with dramatically expanding our local presence in emerging markets, which has shared P&L responsibility for all GE businesses in many of those economies. I asked John Rice, one of our best leaders, to move to Hong Kong to head it, and I personally spent almost 50% of the next year in growth regions. There was a lot of disagreement among our leaders about who had control over what and what it would mean to run a business in, say, Brazil if we were going to have a horizontal global organization. My role was to make sure it was a healthy tension and that we stayed focused on the outcome.

Soak

Good leaders, good CEOs, are curious. They are absorbing information about potentially important trends and developments all the time, but they don't instantly react to them. They contemplate them. They read about them. They listen to internal and external experts with a variety of perspectives. They engage in what I call a "soak period" before they reach a conclusion about what the input means for their company and how to act on it. A leader needs a long soak period mainly because of the tremendous amount of personal fortitude required to drive lasting change in a big organization. You must be profoundly convinced that the company must

transform itself—that it's a matter of life or death—because when you start the play, you will immediately get pushback.

My soak period that led to our globalization initiative is a good example. GE has always been a pretty global company (defined as an American company that sells around the world). But with the divergent growth coming out of the financial crisis, we needed a more aspirational approach. We wanted a company that was capable of having a higher market share globally than we had in the United States.

At the time, free-trade deals were still the coin of the realm: The prevailing view was that the United States was going to have trade deals with Europe and the Pacific Rim countries. I disagreed. I felt that people wanted jobs in their own country. Jobs are currency. Although I didn't think protectionism was the answer and believed we needed better-defined, fairer trade deals, I didn't see that happening anytime soon.

Sometimes while you are soaking, a single event can compel you to act. In 2010 I was sitting in a hotel restaurant in Ghana with two great young leaders on our Africa team. They were describing a big opportunity in the power industry, but it was complicated. I was in love with their passion, but I realized that even if I spent the next month helping them, we would not get the deal approved inside GE. And I ran the place!

After that meeting I went to the board and got its support for creating the Global Growth Organization. Fundamentally, that put the horizontal operations in regions on par with the vertical businesses. It made them responsible for sales and marketing, R&D, and manufacturing in their territories. It allowed the regional organizations to act faster and be more responsive to local customers' needs while still taking advantage of our global scale.

Another example is our ongoing drive to become the leader in the digital industrial space—a transformation we launched in 2011. It originated in my meetings with customers in 2008 and 2009. I started my career in sales, and I have always spent a lot of time on the road. So I've always had a healthy disrespect for headquarters, which I still have today. When you spend time on the road, you get more opportunities for soaking, for learning.

I continued that practice even after becoming CEO. Every month I spent six or eight days out of the country and two days in the field in the United States, sitting down with our sales teams and the people in customer organizations who were making the decisions to purchase our products and services. The purpose was not only to get somebody to buy a new power turbine, jet engine, or MRI machine but also to learn what people were contending with, how their businesses were changing, and how they were using our products and trying to get more out of them—how they were trying to drive productivity.

I remember spending time with some of our locomotive customers, such as BNSF and Norfolk Southern. In the rail industry, one mile per hour of velocity is worth hundreds of millions of dollars in profit. We were experimenting with simple analytical tools, and our customers encouraged us to do more and get bigger. They reminded me that help making progress on operational technology would be worth more to them than our products. I started to worry that if GE wasn't providing it to them, someone else would, and we'd lose a big edge in the market. That sparked the realization that what had upended traditional incumbents in one industry after another could occur in the industrial sector, and that once the digital revolution was under way, playing catch-up wouldn't work.

Starting in 2009, over the course of several years I visited our controls and analytics labs and spent time in Silicon Valley. As the CEO of GE, I could get the best people in a field to talk to me about what was going on. I always capitalized on that. I met with tech leaders including Jeff Bezos, of Amazon; Paul Otellini, of Intel; Marc Benioff, of Salesforce; and Steve Ballmer (and later, Satya Nadella), of Microsoft, and had dinners with venture capitalists. I listened to them describe where they were going and how they went from strength to strength. I also read a lot. The two things that influenced me the most were Marc Andreessen's 2011 *Wall Street Journal* article, "Why Software Is Eating the World," and *The Lean Startup*—Eric Ries's book, which I literally read in a day.

In 2011 we decided to hire Bill Ruh from Cisco to lead our industrial internet effort; to establish a major software center in San Ramon, California, that would support the transformation; and to insist from day one that we would infuse the effort with outside talent—our original goal was to hire a thousand software engineers. Those decisions have led us to where we are today. They had their roots in the days when I ran our health care business, from 1996 to 2000. I had wanted it to be more digital but made the mistake of letting the health IT business be run by GE people who didn't have enough external focus. As a result, we didn't get as much traction as I'd wanted. I had reflected on that for more than a decade.

I've mainly been talking about what I did personally, but I think this kind of leadership bleeds into the organization. The people running GE businesses today are more curious and much more externally focused than in the past. Frequently I'd say in a meeting, "Hey, I've got half an idea. Can anybody grab it?" More often than not, one of the people who did was Beth Comstock, one of our vice chairs. (For example, she and our CIO, Jim Fowler, are taking the lead in exploring blockchain's potential impact on GE.) Keith Sherin, who served as CFO and then as the head of GE Capital before retiring last year; Jeff Bornstein, our current CFO; and John Rice, our vice chairman who heads our Global Growth Organization, are also adept at that. Our information mechanisms, such as the marketing organization and the growth playbook process, which is our

strategic-planning method for ensuring that we're disciplined in pursuing organic growth, support these explorations.

When you get to the point where you believe to your core that things have fundamentally changed—when you feel that if we don't do it, it's going to get done to us—it's time to act and to engage the organization.

Make It Existential

Every time we drove a big change, I treated it as if it were life or death. If you can instill that psychology in your management group, you can get transformation.

I taught twice a month in the executive development programs at our Crotonville campus, in Ossining, New York, where I could reach people three or four levels down in the organization. When there, I might say, “Guys, if we don’t become the best technology company in the world, we’re doomed, we’re dead.” And when I talked about digital industrial, I’d say, “There’s no Plan B. There’s no other way to get there. Who’s coming with me? What’s in your way? What do we need to be doing differently?”

I communicated the message repeatedly—at the yearly meeting, in August, of our corporate officers (200 senior executives who lead the company’s large revenue-generating businesses or are in top technology or functional roles); the gathering, in January, of our 600 to 700 officers and senior executives; the quarterly corporate executive council attended by our top 40 leaders; and town hall sessions in Beijing and Shanghai. I did webcasts and wrote about the transformations in internal blogs and our annual report.

I always laugh when people in business or politics think they're going to give one speech and everybody's going to say, "OK, I've got it. I'll go with you." I still want to be the best salesperson in the company. I'll knock on doors and say, "Let me just give you one more pitch."

I allowed people to express reservations and concerns, but I didn't make participation optional. I didn't give people an out. We've got lots of mechanisms, including our organizational structure and our pay and performance review system, to make sure everyone gets with the program. There are now dedicated digital organizations inside each business. The leaders of the business and its digital organization have shared metrics that determine part of their compensation. We have reviews every 60 days. And individual businesses' obligations to carry out the transformations are in everybody's growth playbook. For globalization, we measure each business on how many executives it has in emerging markets. If the leader of a business had 17 and was supposed to have 20, I'd demand to know the reason. We take all the arteries of process in the company and align them to drive change.

Another crucial way I enlisted people in the cause was by forging personal relationships. One weekend a month, a GE officer and his or her spouse would have dinner with my wife, Andrea,

and me at our home. The next morning, I'd spend four hours talking with him or her. I'd say, "Tell me what's important in your business. What do you think we should do at GE? What are you working on? What else do you want to do?" Those weekends were a way to hear perspectives I might not get otherwise. In addition, they gave me a chance, person by person, to build deep connections, which are important in driving change.

Be All In

Half measures are death for big companies, because people can smell lack of commitment. When you undertake a transformation, you should be prepared to go all the way to the end. You've got to be all in. You've got to be willing to plop down money and people. You won't get there if you're a wuss. Look at the billions of dollars we've invested in our digital capabilities and additive manufacturing.

You can't regard a transformation as an experiment. We've approached digital very differently from the way other industrial and consumer products companies have. Most say, "We'll take an equity stake in a digital start-up, and that is our strategy." To my mind, that's dabbling. I wanted to get enough scale fast enough to make it meaningful. My view was that GE had as good a chance as anybody at winning in the industrial internet, because we were not starting from

scratch: We had a $240 billion installed base of service contracts, a huge order backlog, and the ability to offer financing. We could build on our existing strengths to get even better.

So we launched digital across all our businesses. By that I mean we launched a major effort to embed sensors in our products and build an analytics capability to help our customers learn from the data that the sensors generated. Initially, we focused on increasing the productivity of their service contracts—for example, improving the uptime, or the time on the wing, of our jet engines and reducing the turnaround time for overhauls. After that, we built new capabilities in our businesses and started selling them to our existing customers—helping them use analytics the way we did. Then we built the Predix platform, which we aimed to make the operating system for the industrial internet.

We also went all in with our move into additive manufacturing, or 3-D printing—which I see as part of the digital industrial transformation. We had been working on additive manufacturing for applications inside the company for five or six years—maybe 10 years in terms of developing materials for it. We're a big user of it in our aviation, transportation, energy, and health care businesses, maybe the biggest on the metallics side. In the spring of 2016 we started to talk about making additive manufacturing a stand-alone business: providing machines, materials, and expertise to a range of industries, even beyond the ones we compete in.

We could see a way to automate it. We could see it being very disruptive—making what we want, where we want, with workers who are more productive and more valuable. We gave a presentation to our board last summer. Because I was so close to the initiative, it was helpful to see members' high level of engagement and to hear their reflections on how disruptive it could be. Within 30 days of that meeting we acquired two companies for a billion and a half dollars: Arcam, which specializes in electron-beam melting systems, and Concept Laser, which specializes in powder-bed-based laser metal printing. Both print metal parts for aircraft and other industrial components. They gave GE a market share of about 20% in the additive-equipment market.

Even for a company our size, once you make a move like that, you're committed. You're investing serious money. You're driving it across the company. You have a sales force. You have products. You're willing to change your business model by doing business with competitors and opening up the system to your customers. That is change.

Finally, total commitment means insisting that people get with the program. The good thing about the GE culture is that nine times out of 10, people are going to say, "Hey, let's try it. Let's see where it goes." But inevitably a handful will resist. That's why it's important to be jogging—to have momentum—when you meet opposition and inertia.

When we created the Global Growth Organization, I told the executives in charge of our businesses, "Look, to get global, we've got to be more local. So we're going to run the company as a full-fledged matrix where the regions have power." A few of our best leaders couldn't deal with that process. They were used to running a very vertical slice of a P&L, and the world was becoming more horizontal. I said, "When you fight with the guy in Riyadh from now on, he's going to win sometimes." And they said, "Well, that's not really the way I want to do it." I appreciated their honesty but decided they had to go.

Be Resilient

Transformation requires staying power. At GE, we had a pretty good track record of investing through a crisis, particularly in technology and globalization. For example, we doubled our investment in commercial engine technology from 2009 to 2012. Our competitors did not. That explains why at this year's Paris Air Show we booked $30 billion in orders and our competitors booked about a couple billion.

Similarly, last year the annual revenue generated by our China health care business surpassed $2 billion. That's up from virtually nothing when I ran the business in the late 1990s! Now we have a strong local business with deep local talent. We are respected by Chinese customers and the government. But we didn't achieve our current position easily. We had to persevere: Whenever one door closed, we opened another.

I believe that energy storage and solar technologies are critical to GE's future. But pursuing them hasn't been easy. In the past five years we have written off more than $300 million of our investments in battery and thin-film solar technology. This is not failure; it has made us smarter.

I hate to say it, but transformation takes time. If change is easy, it is not sustainable. You need a thick skin to see it through. In the capital markets, two ideas—unlocking value and creating value—get thrown around almost as if they were interchangeable, but they are not. Unlocking value frequently means strategic capitulation for short-term gain. Creating value is the result of long-term investing—for example, when M&A activity to acquire technology or market access or position is ultimately connected to a longer-term value proposition. It's harder to appreciate such moves if you're using only a short-term lens.

I led GE during the financial crisis. Those were very lonely days. Despite our portfolio work, our financial services businesses were still too big in 2008, when Lehman Brothers went down. It was my fault. But we didn't stop or point fingers. Most of the aviation engine technology that is allowing us to gain a share today is a result of investments we made during the financial crisis. We fixed the problems. And a better company emerged.

Transformation takes grit. It requires risk taking. Many large companies change their CEOs every three to five years; GE's CEOs have tenures that are a multiple of that. This is because driving change at scale is an imperfect science. It takes time and resiliency.

Be Willing to Pivot

One of the hardest challenges in driving change is allowing new information to come in constantly and giving yourself the chance to adapt while still having the courage to act and push people forward. There's a tension: Even as you're making a major commitment of resources, you've got to be open to pivoting on the basis of what you learn, because you're unlikely to get the strategy perfect out of the gate. Nothing we've done has ever turned out exactly as it began.

CHAPTER 5

DATA ANALYSIS AND INTERPRETATION

5.1 DATA ANALYSIS METHOD

The simple percentage is the method used in this study for analysis data because the data for this study was mostly collected by direct survey using a questionnaire. So, the simple percentage method is an accurate method during the data analysis in this project study.

5.2 FACT-FINDING RESULTS

The various parameters selected for analyzing the job satisfaction level and it's impact are:

- Remuneration
- Training & Development
- Communication
- Goals
- Teamwork
- Promotions
- Leadership
- Rewards & Punishment
- Social Environment
- Physical Environment

Previously conducted surveys prove that the above-mentioned parameters have a high positive correlation with the job satisfaction level and its impact on employee motivation.

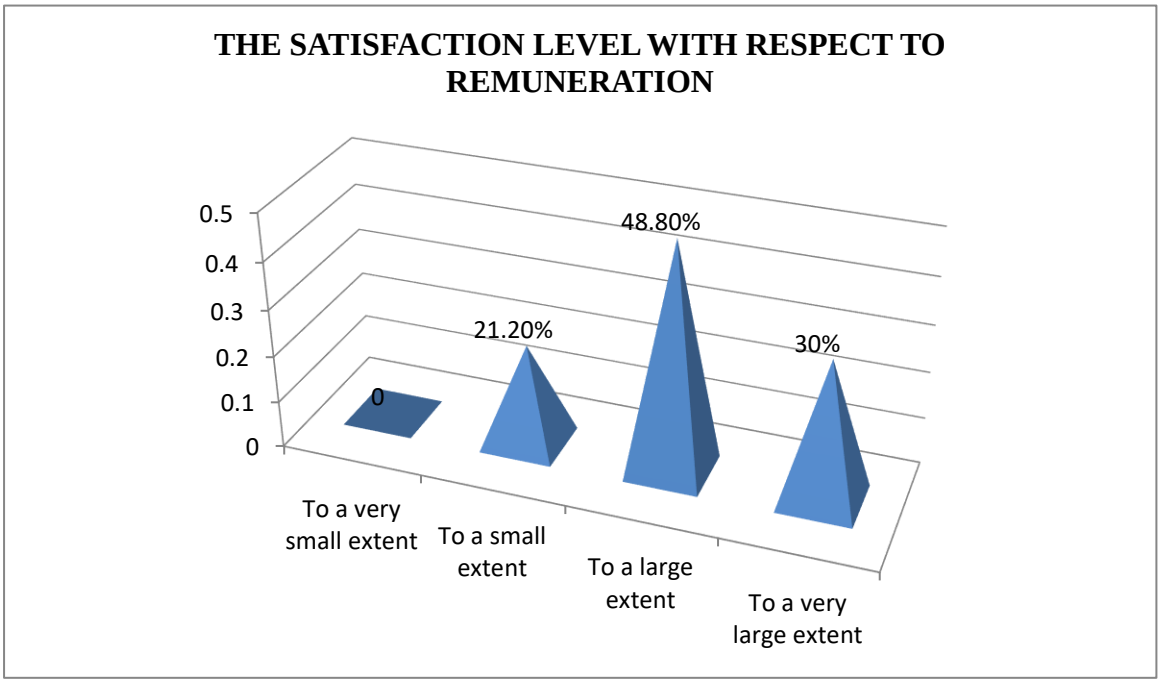
Feedback given by the employees regarding the above mentioned parameters have been analyzed to find out the employees perception about these parameters and thereby the overall job satisfaction level is measured then analyzed it's impact on employees motivation.

TABLE 1

THE SATISFACTION LEVEL WITH RESPECT TO REMUNERATION

SATISFACTION LEVEL	PERCENTAGE (%)
To a very small extent	Nil
To a small extent	21.2
To a large extent	48.8
To a very large extent	31

GRAPH 1



Interpretation

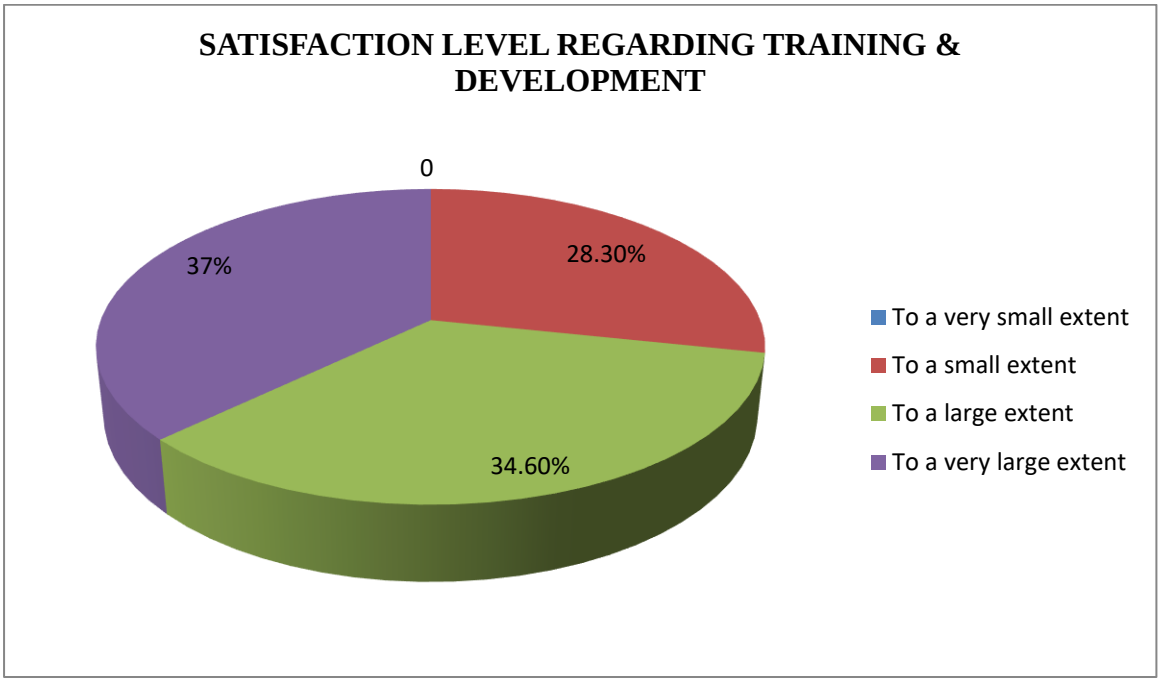
- 21.2% of the employees are satisfied with the remuneration to a small extent
- 48.8 of the employees are satisfied with their remuneration to a large extent
- 30% of the employees are very much satisfied with their remuneration

TABLE 2

SATISFACTION LEVEL REGARDING TRAINING & DEVELOPMENT

SATISFACTION LEVEL	PERCENTAGE (%)
To a very small extent	Nil
To a small extent	28.3
To a large extent	34.6
To a very large extent	37.1

GRAPH 2



Interpretation

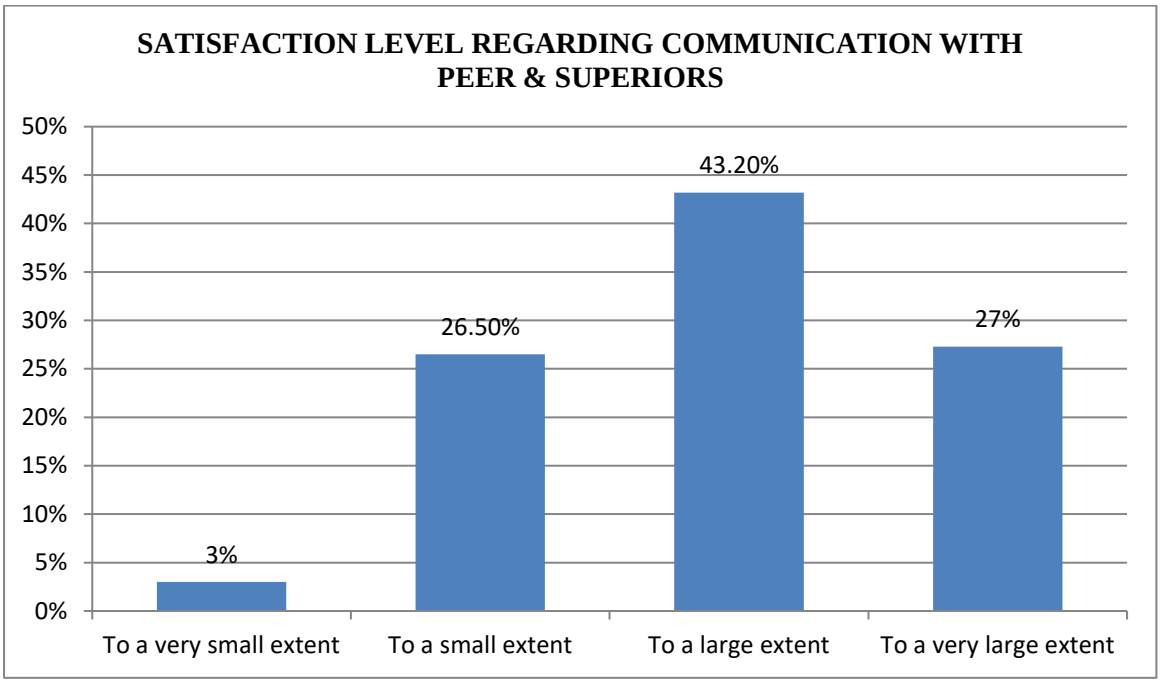
- 28.3% of the employees are satisfied with the Training & Development to a small extent
- 34.6% of the employees are satisfied with their Training & Development to a large extent
- 37% of the employees are very much satisfied with their Training & Development

TABLE 3

SATISFACTION LEVEL REGARDING COMMUNICATION WITH PEER & SUPERIORS

SATISFACTION LEVEL	PERCENTAGE (%)
To a very small extent	3
To a small extent	26.5
To a large extent	43.2
To a very large extent	27.3

GRAPH 3



Interpretation

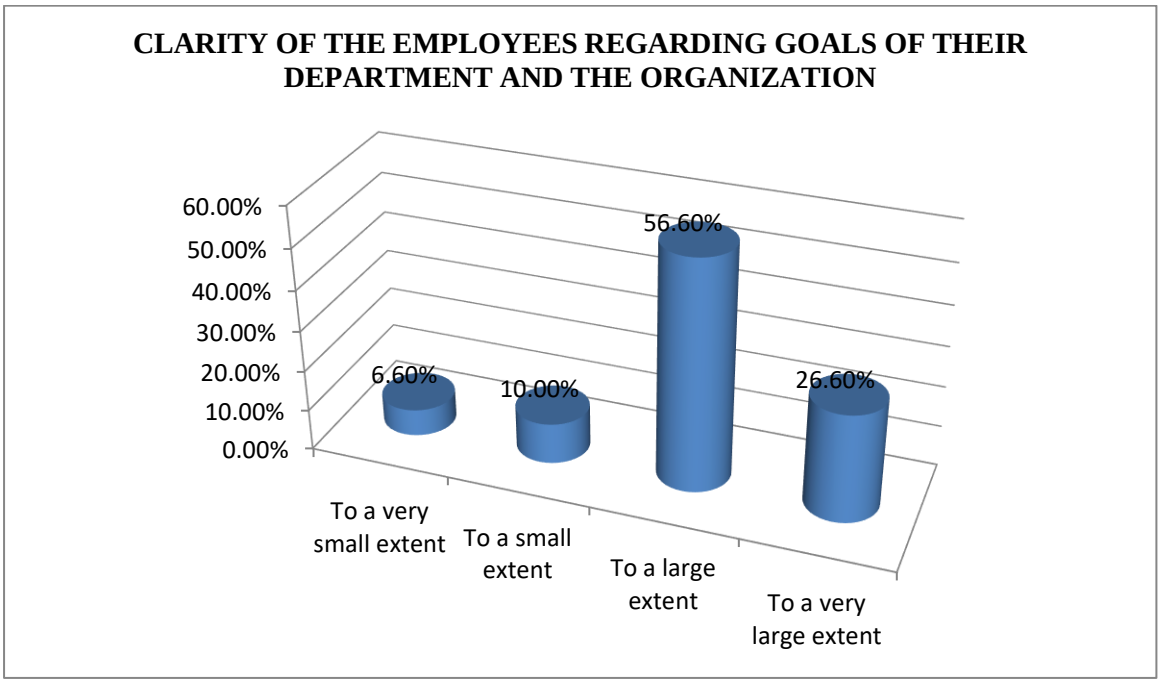
- 3 % of the employees feel very uncomfortable to communicate with their peers and superiors
- 26.5% of the employees are satisfied to a small extent with regard to communication
- 43.2 of the employees are satisfied to a large extent with regard to communication
- 27% of employees to a very large extent are comfortable in communicating with their superiors and peers.

TABLE 4

CLARITY OF THE EMPLOYEES REGARDING GOALS OF THEIR DEPARTMENT AND THE ORGANIZATION

SATISFACTION LEVEL	PERCENTAGE (%)
To a very small extent	6.6
To a small extent	10
To a large extent	56.6
To a very large extent	26.8

GRAPH 4



Interpretation

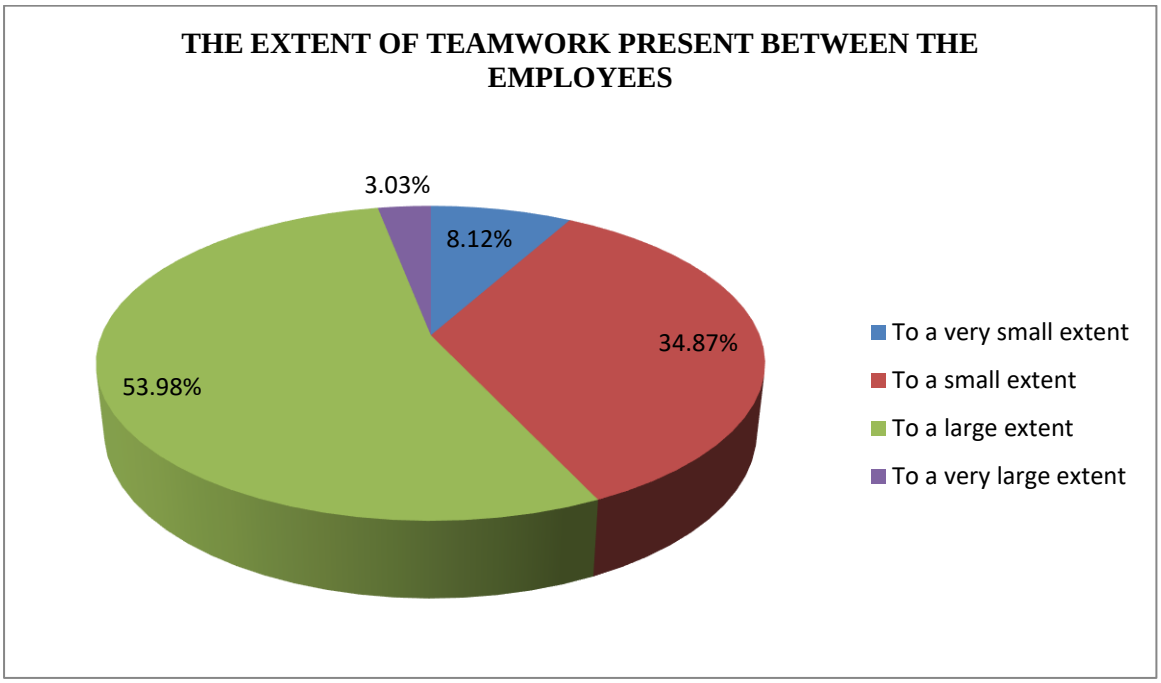
- 6.6 % of the employees are not very clear with their goals
- 10% of the employees are clear to a small extent with their goals
- 56.6% of the employees are clear with their goals to a large extent
- 26.8% of the employees do not have any confusion with regard to their goals.

TABLE 5

THE EXTENT OF TEAMWORK PRESENT BETWEEN THE EMPLOYEES

SATISFACTION LEVEL	PERCENTAGE (%)
To a very small extent	8.12
To a small extent	34.87
To a large extent	53.98
To a very large extent	3.03

GRAPH 5



Interpretation

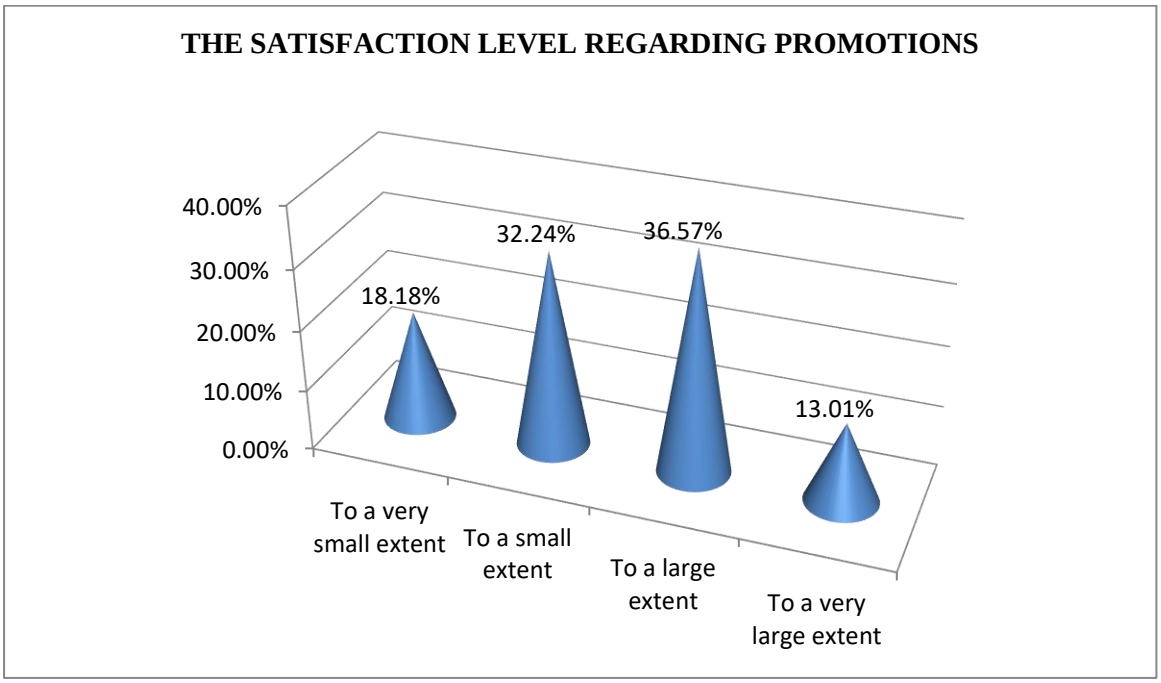
- 8.1 % of the employees are satisfied with teamwork to a very small extent
- 34.87 % of the employees are satisfied with teamwork to a small extent
- 53.98% of the employees to a large extent are satisfied with teamwork
- 3.03% of the employees are satisfied with teamwork to a very large extent

TABLE 6

THE SATISFACTION LEVEL REGARDING PROMOTIONS

SATISFACTION LEVEL	PERCENTAGE (%)
To a very small extent	18.18
To a small extent	32.24
To a large extent	36.57
To a very large extent	13.01

GRAPH 6



Interpretation

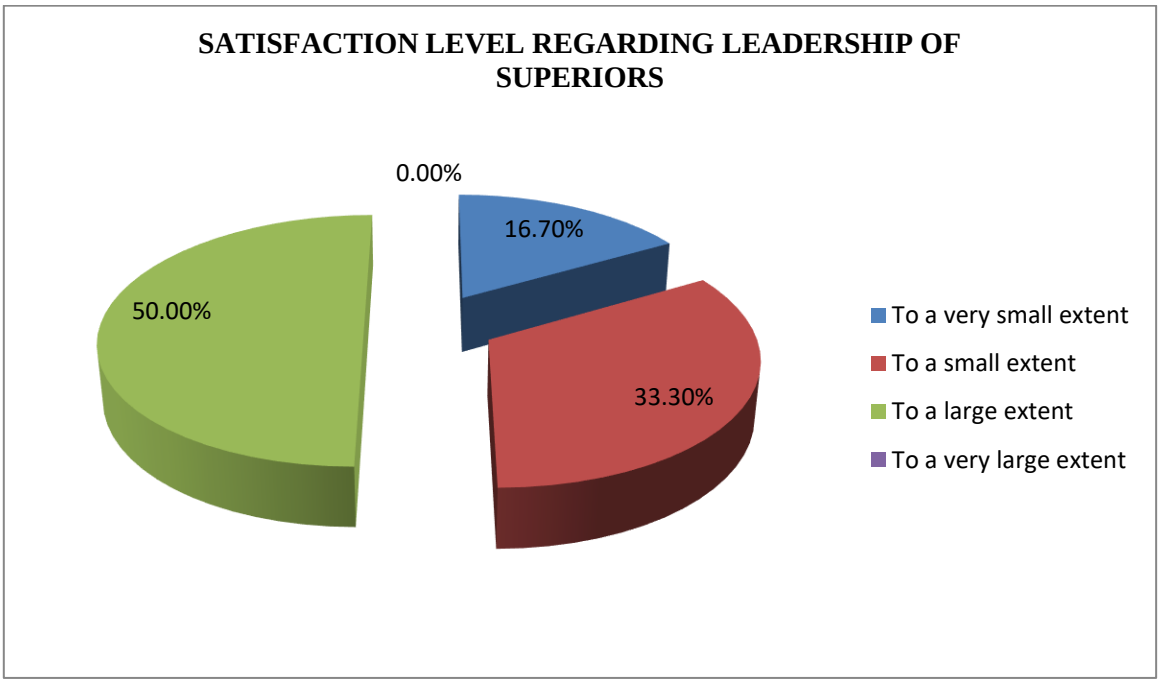
- 18.18% of the employees are dissatisfied with promotions
- 32.24 of the employees are satisfied with promotions to a small extent
- 36.57% of the employees are satisfied with promotions to a large extent
- 13.01% of the employees are satisfied with promotions to a very large extent

TABLE 7

SATISFACTION LEVEL REGARDING THE LEADERSHIP OF SUPERIORS

SATISFACTION LEVEL	PERCENTAGE (%)
To a very small extent	16.7
To a small extent	33.3
To a large extent	50
To a very large extent	0

GRAPH 7



Interpretation

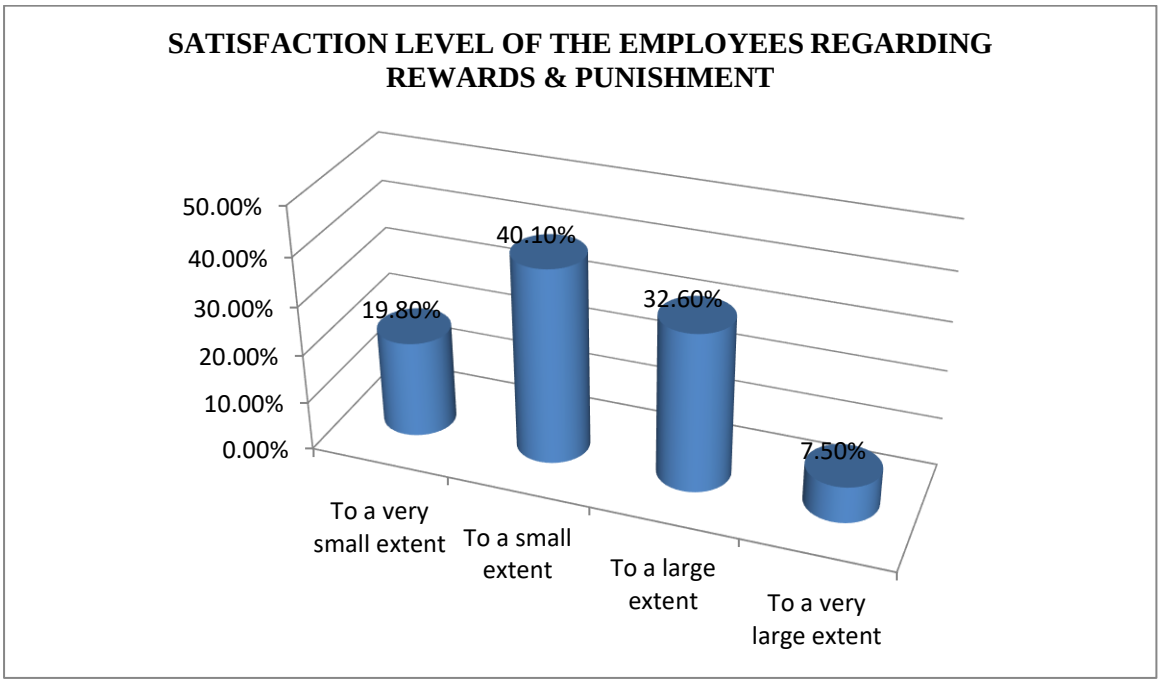
- 16.7 % of the employees are very much dissatisfied with leadership
- 33.3 % of the employees are dissatisfied with leadership to a small extent
- 50% of the employees are satisfied with leadership to a large extent

TABLE 8

THE SATISFACTION LEVEL OF THE EMPLOYEES REGARDING REWARDS & PUNISHMENT

SATISFACTION LEVEL	PERCENTAGE (%)
To a very small extent	19.8
To a small extent	40.1
To a large extent	32.6
To a very large extent	7.5

GRAPH 8



Interpretation

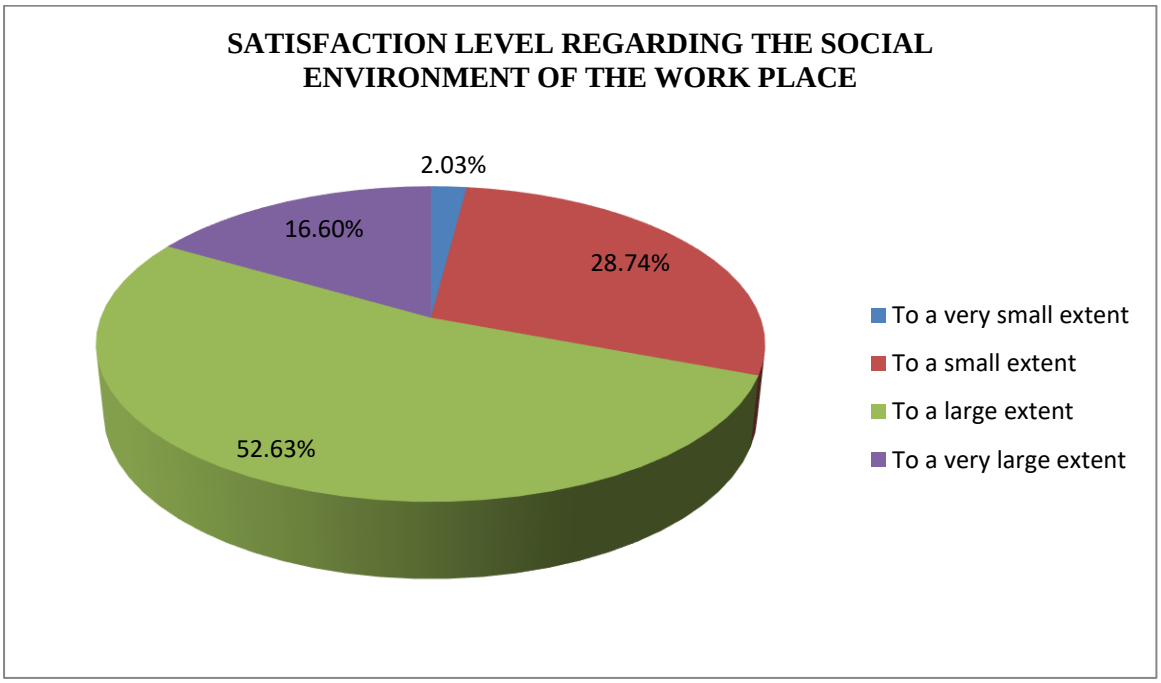
- 19.8 % of the employees feel that rewards & punishment system is not very effective
- 40.1% of them feel that reward & punishment system is effective to a small extent
- 32.6% of them feel that rewards & punishment system is effective to a large extent
- 7.5% of the employees are very much satsified with rewards & punishment system

TABLE 9

SATISFACTION LEVEL REGARDING THE SOCIAL ENVIRONMENT OF THE WORK PLACE

SATISFACTION LEVEL	PERCENTAGE (%)
To a very small extent	2.03
To a small extent	28.74
To a large extent	52.63
To a very large extent	16.60

GRAPH 9



Interpretation

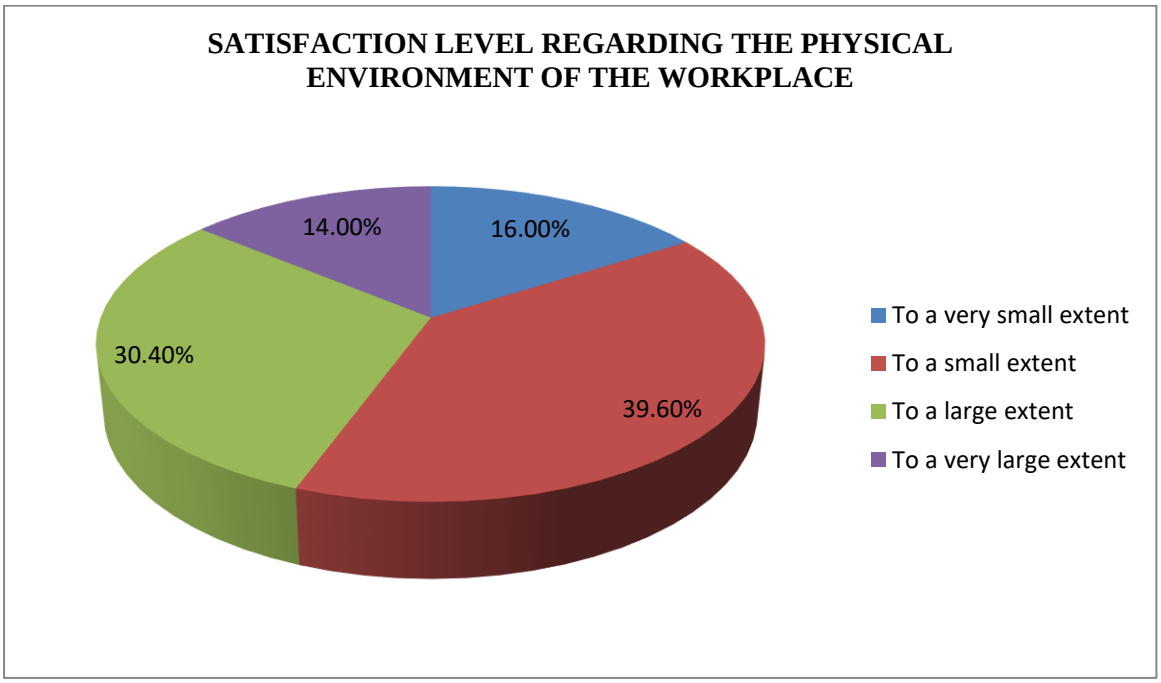
- 2.03 % of the employees are very much dissatisfied with the social enviroment
- 28.74% of the employees are satisfied with the social environemtn to a small extent
- 52.6% of them are satisfied with the social environment to a large extent
- 16.6 % of the employees are satsified with the social environment to a very large extent.

TABLE 10

SATISFACTION LEVEL REGARDING THE PHYSICAL ENVIRONMENT OF THE WORKPLACE

SATISFACTION LEVEL	PERCENTAGE (%)
To a very small extent	16
To a small extent	39.6
To a large extent	30.4
To a very large extent	14

GRAPH 10



Interpretation

- 16% of the employees are not very happy with the physical environment
- 39.6% of the them are satisfied with the physical environment to a small extent
- 30.4% of the employees are satisfied with the physical environment to large extent
- 14% of the employees are very much happy with the physical environment of the organization.

5.3 HUMAN POTENTIAL AND SUCCESS IMPACT STUDY

5.3.1 PROBLEMS RECOGNIZED

• Small number of employees are not satisfied with their remuneration as required
• Training & Development are not up to the mark
• Inter communication level is not as good as required
• Organizational goals are not communicated properly to all employees
• Team work is not good as required
• Large percentage of employees are not satisfied with their promotion
• Some Employees are dissatisfied with their leadership
• Reward & Punishment system is not proper
• Social environment inside the Organization is not up to the mark
• Physical environment level of employees are not reached the level as required

5.3.2 IMPACT ON MOTIVATION ANALYZES

1. **Small number of employees are not satisfied with their remuneration as required**

Study Result:

- 21.2% of the employees are satisfied with the remuneration to a small extent
- 48.8 of the employees are satisfied with their remuneration to a large extent
- 30% of the employees are very much satisfied with their remuneration

From the result it is clear that about quarter percentage of employees are not satisfied with the remuneration. This will create employees dissatisfaction. This is the major factor for negative motivation.

2. **Training & Development are not up to the mark**

Study Result:

- 28.3% of the employees are satisfied with the Training & Development to a small extent
- 34.6% of the employees are satisfied with their Training & Development to a large extent
- 37% of the employees are very much satisfied with their Training & Development

Result shows that training and development at Mumbaise hospitals have a spread effects. It is not a concentrated one. Such training will not provide a proper effect on employees this will reduce job dissatisfaction level and increase motivation.

3. **Inter communication level is not as good as required**

Study Result

- 3 % of the employees feel very uncomfortable to communicate with their peers and superiors
- 26.5% of the employees are satisfied to a small extent with regard to communication
- 43.2 of the employees are satisfied to a large extent with regard to communication
- 27% of employees to a very large extent are comfortable in communicating with their superiors and peers.

Few employees are not feeling comfortable with the communication system. It can be negligible. But as a standard organization it should be improved. Improving the level of communication gives clarity in all activities. Improving the level of communication increases the standard of the company and that will increase the job satisfaction level and motivation level.

4. **Organizational goals are not communicated properly to all employees**

Study Result:

- 6.6 % of the employees are not very clear with their goals

- 10% of the employees are clear to a small extent with their goals
- 56.6% of the employees are clear with their goals to a large extent
- 26.8% of the employees do not have any confusion with regard to their goals.

As an organization the communication of goals to all employees is very essential. Say it should be 100% clear to each and every employee. But in Mumbaise hospitals, communication of goals to all employees is not fulfilled. This affects the overall performance of the company. Performance of the company is an important factor of job satisfaction also for motivation of employees.

5. Team work is not good as required

Study Result

- 8.1 % of the employees are satisfied with teamwork to a very small extent
- 34.87 % of the employees are satisfied with teamwork to a small extent
- 53.98% of the employees to a large extent are satisfied with teamwork
- 3.03% of the employees are satisfied with teamwork to a very large extent

Each and every employee is the link of an organization. So team work has certain importance in any organization. The small amount of dissatisfaction in a team work pays a lot in the future. So for a better output in the end motivate employees.

6. Large percentage of employees are not satisfied with their promotion

Study Result

- 18.18% of the employees are dissatisfied with promotions
- 32.24 of the employees are satisfied with promotions to a small extent

- 36.57% of the employees are satisfied with promotions to a large extent
- 13.01% of the employees are satisfied with promotions to a very large extent

Promotion to employees is a motivation and also a job rotation. But certain factors influence the promotion. Employees expect promotion for improving their status. This will be used as a motivation tool. Neglect promotion to any employee lead to dissatisfaction and it affect the motivation level of employees.

7. Some Employees are dissatisfied with their leadership

Study Results

- 16.7 % of the employees are very much dissatisfied with leadership
- 33.3 % of the employees are dissatisfied with leadership to a small extent
- 50% of the employees are satisfied with leadership to a large extent

Leadership is the back bone of any Organization. Dissatisfaction about the leadership will directly affects the function of the Organization. Improper leadership creates dissatisfaction in employees and it de-motivates the employees.

8. Reward & Punishment system is not proper

Study Results

- 19.8 % of the employees feel that rewards & punishment system is not very effective
- 40.1% of them feel that reward & punishment system is effective to a small extent
- 32.6% of them feel that rewards & punishment system is effective to a large extent
- 7.5% of the employees are very much satsified with rewards & punishment system

Rewards and punishment are common things in any Organization. Rewards motivate employees but punishment creates negative effects in employees. So before taking punishment action it should be properly analyzed. In this case few employees are not satisfied with rewards & punishment. This creates negative impact on employees and leads to negative motivation.

9. Social environment inside the Organization is not up to the mark

Study Result

- 2.03 % of the employees are very much dissatisfied with the social enviroment
- 28.74% of the employees are satisfied with the social environemtn to a small extent
- 52.6% of them are satisfied with the social environment to a large extent
- 16.6 % of the employees are satsified with the social environment to a very large extent.

Few employees are not satisfied with the social environment. This will affect the morality of the employees. Currently the percentage level is very less so it can be neglected. But it is better to taken care otherwise this also become a factor for employee dissatisfaction and motivation.

10. Physical environment level of employees is not reached the level as required.

Study Result

- 16% of the employees are not very happy with the physical environment
- 39.6% of the them are satisfied with the physical environment to a small extent
- 30.4% of the employees are satisfied with the physical environment to large extent
- 14% of the employees are very much happy with the physical environment of the Organization

Physical environment is the internal factor of any Organization. Good physical environment improves productivity. So it is very essential to maintain a good physical environment. Employees always expect a good physical environment. If employees are not getting good physical environment they become de-motivated and look for another opportunities.

5.3.3 RECOMMENDATION TO IMPROVE MOTIVATION LEVEL

No	Problem	Solution

1	**Small number of employees are not satisfied with their remuneration as required**	Current remuneration methods to be modified.
2	**Training & Development are not up to the mark**	Training & Development plan to be improved after study
3	**Inter communication level is not as good as required**	Inter communication methods to be modified.
4	**Organizational goals are not communicated properly to all employees**	Organizational goal to communicated to all employees through interaction program
5	**Team work is not good as required**	Proper training of employees to be conducted for improving team work
6	**Large percentage of employees are not satisfied with their promotion**	A promotion strategy to be made.
7	**Some Employees are dissatisfied with their leadership**	Find out the reason for dissatisfaction with their leadership and take necessary step to rectify it.
8	**Reward & Punishment system is not proper**	A well studied reward and punishment system to be implemented
9	**Social environment inside the Organization is not up to the mark**	Social environment to be improved with proper training.
10	**Physical environment level of employees is not reached the level as required.**	Management needs to study this issue and create proper plan for improve physical environment

5.4 WAYS TO INCREASE PRODUCTIVITY BY UNLOCKING HUMAN RESOURCES

1. Be Efficient

Consider how your business is currently operating, and be open to the potential of changing the way you work. Remember that it's equally as important to make short-term and long-term lists as it is to prioritise tasks, especially in a small business.

Is there a better way that staff members could structure their day to enable them to achieve their daily goals? Provide each member of staff with a plan and encourage each to make a list to ensure he or she completes prioritised jobs on time and stays on task all day, resulting in efficient working.

2. Delegate

Delegation comes with an element of risk, but increased responsibility is important for improving the morale and job satisfaction of your staff. Give responsibilities to qualified employees that have a proven track record with success in a certain field, and trust that they will perform the tasks well.

If you allow employees the chance to gain skills and leadership experience, it will benefit your company and provide your employees with a sense of achievement and direction in their own careers.

3. Reduce Distractions

Social media can be a huge productivity killer, but it isn't practical to have a no-phone policy. Instead, try to keep employees focused and engaged while allowing them breathing room.

Encourage employees to turn off their mobiles but take regular breaks during which they can be free to check their phones. This will ensure that the time spent at their desk is more productive.

4. Have the Right Tools and Equipment

Providing employees with the right tools and equipment is important so they can perform their duties efficiently and on time. There's nothing more counterproductive than spending time waiting for paperwork to print because you haven't got a fast printing device.

High-quality, modern programs and equipment make a massive difference not only to the workforce but also to how your company is perceived. Save time and effort by using equipment such as an MFP, which can work as printer, scanner, copier and fax machine.

5. Improve workplace conditions

A comfortable working temperature is between 68 and 70 degrees F (20-21 C). An environment that's too hot or too cold distracts from concentration, as employees will spend more time

walking around to get their coats or an electric fan. Ensure both heating and air-conditioning systems are in working order for when the relevant season comes around.

6. Offer Support and Set Realistic Goals

A common problem for managers is having no clear, strong sense of whether their employees are high-performing or not.

Do your employees need an incentive to stay on track? Help them by offering goals that are achievable. Provide clear direction to supervisors and employees to help clarify expectations. This will help to increase their productivity, as they will have a clear focus and clear goals.

7. Practice Positive Reinforcement

Encourage, motivate and reward. Tell employees they are doing a good job and give constructive criticism. Most importantly, offer personal incentives for doing the job well – could they get a free holiday or a free takeout coffee for performing above and beyond their roles?

You should clearly indicate success of one employee to other staff to cultivate a sense of fulfilment to motivate others. When you motivate your employees to work harder and receive rewards in return, they're more likely to put increased productivity high up on their to-do list.

8. Ensure Employees Are Happy

A stressful workplace will not yield results. Workers that constantly operate under highly stressful conditions are found to be less productive and have higher levels of disengagement and absenteeism … They need to be happy!

Showing employees how much the company appreciates, respects and values them on a personal level is gratifying – and often overlooked.

If you want your staff to work to the best of their ability, try out a few of these tips and enjoy the benefits.

5.5 EFFECTIVE HUMAN RESOURCE TRAINING METHODS



1. Job Rotation

It involves the movement of the trainee from one job to another. The trainee receives job knowledge & gains experience from his supervisor or trainer. This type of training gives an opportunity to the trainee to understand the problem of employees on other jobs & respect them.

2.Coaching

The trainee is placed under a particular supervisor who functions as a coach in training the individual. The supervisor provides feedback to the trainee on his performance & offers him some suggestions for improvement**.**

3.Job Instruction

This method is also known as step by step training. Under this method, the trainer explains to the trainee the way of doing the jobs, knowledge & skill and allows him to do the job. The trainer appraises the performance, provides information & corrects the trainees.

4) Committee Assignment

Under this method, a group of trainees is given and asked to solve an actual organization problem. The trainees solve the problem jointly and develop teamwork.

Off the Job Methods

Under this method of training, the trainee is separated from the job situation and his attention is focused upon learning the material related to his future job performance.

1.Vestibule training

In this method, actual work conditions are simulated in a classroom. Material files and needed equipment are also used in training. This type is used for training personnel for clerical and semi-skilled jobs.

2 Role-Playing

It is defined as a method of human interactions that involves realistic behavior in an imaginary situation. This method of training involves action doing the practice. This method is mostly used for developing inter-personal interaction and relations.

3. Lecture Method

The lecture is a traditional & direct method of instruction. The instructor organizes the material & gives it to a group of trainees in the form of talk. This is beneficially to train a large group of trainees.

4. Conference

It is a method for clerical, professional & supervisory personnel. This involves a group of people who put forth ideas, examines & share facts, ideas assumptions & draw a conclusion..the success of this method depends on the leadership qualities of the person who leads the group.

5.Programmed Instructions

In recent years this method has become popular the subject matter to be learned is presented in a series of carefully planned sequential .this method is expensive & time-consuming.

5.6 EFFECTIVE WAY OF MOTIVATING EMPLOYEES

1. Gamify and Incentivize

Although we haven't implemented it yet, we're developing a feedback system that rewards employees for engaging with our wiki and for learning how to use our application via our training videos. We further reward performance based on meeting certain goals. A proven motivator for students and employees alike is earning a "badge" or points for committing to certain tasks.--Blair Thomas, EMerchantBroker

2. Let Them Know You Trust Them

If you let them know you trust and depend on them, they will fill those shoes sooner than you think. A vote of confidence can go a long way. Let them know you trust them to do the best job possible and they will rarely disappoint you. Try it.--Ayelet Noff, Blonde 2.0

3. Set Smaller Weekly Goals

You want lofty ambitions, but set up smaller goals along the way to keep people in it. Rather than make a billion this year, focus on getting 100 new customers this week-something that will get you to that billion. Then reward the team for achieving the goal with an afternoon off, a party, etc. They will see that your goals are realistic and everyone benefits from working hard.--Nicolas Gremion, Free-eBooks.net

4. Give Your Employees Purpose

I am able to motivate my employees by giving them a purpose. When you accomplish that, they understand the vision better and are able to execute more strongly. In addition, by understanding their purpose and the purpose of the business, an employee is better able to understand how they fit into the big picture. --Vlad Moldavskiy, Mabbly, LLC

5. Radiate Positivity

I'm always pumping energy through the office. I'm really enthusiastic and want my staff to feed off that positive energy. Because culture is so important to me, I play music, have fun, joke around, and play games. We work hard, but we play hard too. You have to be in the moment and high-energy all the time! --Josh York, GYMGUYZ

6. Be Transparent

I am very open with employees about what's happening at the highest level so there are no surprises and everyone has a chance to ask questions and give feedback. I want employees to feel included in big decisions and committed to the direction our company takes. This has helped to sustain motivation and increased company loyalty and pride.--Martina Welke, Zealyst

7. Motivate Individuals Rather Than the Team

Aligned incentives are the only true way to ensure everyone on a team is working toward a common goal. Framing the strategy in multiple ways ensures each stakeholder has a clear, personal understanding of how working together benefits himself and the team. This technique allows you to motivate the team to accomplish amazing things.--Ross Resnick, Roaming Hunger

8. Learn What Makes Each Employee Tick

Ask what they do and don't like working on, share the big picture company goals, and respond to their questions. Discern their goals and then invest in their professional growth. During one-on-one check-ins, listen to their ideas, because they're the best at what they do. Respect their personal schedules and non-work time, and don't ever pit their goals/timelines against each other.--Heather McGough, Lean Startup Company

9. Reward Based on Feedback

We developed Valuebot-an app for Slack that calculates how many times each employee was praised-in order to send daily and monthly summaries. Whoever garners the most kudos wins various awards and recognition. Valuebot has helped us to visualize our culture and reiterate how much we support one another. The positive energy we create in the office helps us to attract and retain talent.--Stephen Gill, http://www.50onred.com

10. Prioritize Work-Life Balance

We have a few fun incentives, like an in-office "phone booth" style machine that lets you grab dollar bills. It's a fun little motivator that the sales team uses on a smaller scale. Otherwise, it's also important to encourage employees to take vacation time. A culture that prioritizes work-life balance, yields increased productivity and overall happiness in the workplace.--Jesse Lipson, Citrix

11. Have an Open-Door Policy

It's amazing how a simple "please" and "thank you" fares with employees. We simply speak to staff the way we would want to be spoken to. We also have an open-door policy when it comes to suggestions and ideas. When employees feel that their voice matters, they in turn feel confident about their positions in the company and that they have more at stake than just a paycheck.--Justin Beegel, Infographic World, Inc.

12. Let Them Lead

Motivating employees is not just about giving them vacation time-it's about showing them they make a difference and are valued. Every time we have a meeting, whether large or small, we let a different team member lead the conversation and the topics discussed. Not only can they share their opinions and be heard this way, but they are motivated to make their words and ideas happen afterwards.--Miles Jennings, Recruiter.com

13. Show Them the Bigger Picture

It's important that employees understand the bigger picture and can see how what they are doing in the moment will eventually contribute to an end goal. Give them tasks and projects to work on and make sure they understand how this fits into the big picture. Talented employees will go above and beyond what you expect of them.--Brian David Crane, Caller Smart Inc.

14. Create Recognition Rituals

At Convene, every management and executive meeting starts off with each department lead recognizing someone from their team who has gone above and beyond for the company or a client. This positive feedback loop motivates team members, and it holds management accountable for staff recognition.--Christopher Kelly, Convene

5.7 WAYS TO CHECK SUCCESS IN ORGANIZATION

1. Look At Your Business's Financial Statements

When you think about measuring the success of your small business, you need to see how much money it's generating. Obviously, money is important when you run a business. Without it, your business is done. With it, you can grow your business and continue pursuing your entrepreneurial dream. How much money is going in and out of your business?

The three main financial statements you can use at your small business are the income statement, balance sheet, and cash flow statement.

The income statement measures the profitability of your business during a certain time period by showing your business's profits and losses. The balance sheet shows your business's financial health, measuring how much you owe and own. And, the cash flow statement shows how liquid cash is at your business.

Measuring business performance means checking out the money flow of your business. If you want to see how profitable your business is, check out the financial statements.

2. Check Customer Satisfaction

One important measurement of small business success is customer satisfaction. If your customers aren't satisfied after buying from your business, they probably won't do it again.

How do you measure customer satisfaction? There are a few different ways, including through surveys, reviews, or even asking, "Did you find everything you were looking for?"

At Patriot, we pride ourselves on excellent customer satisfaction. We are all about reviews and making sure that our customers are happy with the software we provide. When we receive reviews, we post them on our company website. That way, others know what real people have to say about our products.

Customers help us improve our products. My customers know what they need, and I learn how to satisfy their needs by listening to them. Many of the features we add to our software are because of customer requests.

3. Average How Many New Customers You Get

Knowing how many new customers you get is a great way to measure your business's success and predict growth. If your business is stagnant with the same 25 customers, you might need to kick up your marketing strategy.

See if the people buying from your business are existing customers. Develop a client list with email addresses to track customers. That way, you can easily count the number of new customers per month or year.

Average how many customers you get from each new business action, like adding products or upping your marketing efforts. By averaging your new customers every so often, you can measure how successful your business is at drawing in new people.

4. Conduct Performance Reviews

Let’s not forget about your employees. Employees are essential — without them, you would have a hard time running and growing your business. One way to measure business success is through conducting performance reviews to see how your employees are doing.

I try to conduct performance reviews twice a year. They let me see how happy my employees are at their jobs, as well as how effectively they complete tasks. Performance reviews help employees see what they need to improve and gives me further insight into their workload.

For example, you might have an employee who has extra time on their hands. Through the performance review, you find out that the employee is unhappy because they want more responsibilities. You can then delegate more tasks to that employee to make them happier and increase workplace productivity without increasing the number of workers on payroll.

5. Stay Current On The Market

Sometimes, you need to know how the market is doing in order to measure the success of your own business. If you and your competitors aren't doing well, it might be because there is a lull in the market.

Don't be down if your business's profitability decreases. It might be a result of the national market and out of your control. Decreased profitability could be a good time to introduce new products if demand for your current product or service is put on hold.

6. Assess Your Own Expectations

How do you feel about the success of your business? According to one study, 55% of small business owners are satisfied with being a small business owner.

You might not think about it, but assessing your own happiness is important when measuring your business success.

When I measure my business's success, I try to consider my perception. How do I feel the business is doing? I know the numbers are good, but are they where I want them to be? Make sure you're happy with your progress to encourage all-around success.

5.8 METHODS OF ORGANIZATIONAL PERFORMANCE MEASURE

Input

Input measures monitor the amount of resources being used to develop, maintain, or deliver a product, activity or service. Examples include:

- Money spent on equipment
- Number of employee hours worked
- Number of vehicles
- Facility costs
- Total operating expenditures
- Rental fees
- Number of full-time employees

Output

Output measures monitor “how much” was produced or provided. They provide a number indicating how many items, referrals, actions, products, etc. were involved. Examples include:

- Number of permits issued
- Number of pavement miles resurfaced
- Number of people trained
- Number of water leaks fixed
- Number of cases managed
- Number of arrests made
- Number of documents processed
- Number of clients served

Efficiency

Efficiency measures are used to monitor the relationship between the amount produced and the resources used. This means that efficiency measures are created by comparing input and output, see expressing measures with two or more variables. There are two general types of efficiency measures: unit cost and productivity. Unit cost is a comparison of an ***input*** to an ***output*** (i.e. resources used/number produced). Productivity is a comparison of an ***output*** to an ***input*** (i.e. number produced/resources used). Examples include:

Unit Cost

- Cost per license issued

- Cost per employee taught
- Cost per lane-mile paved
- Cost per client served
- Cost per document

Productivity

- Licenses processed per employee-hour
- Units produced per week
- Students taught per instructor
- Cases resolved per agent
- Calls handled per hour

Quality

Quality measures are used to determine whether customer expectations are being met. These expectations can take many forms, including: timeliness, accuracy, meeting regulatory requirements, courtesy, and meeting customer needs. The expectations can be identified as a result of internal or external feedback.

The comparison of ***outputs*** is often used to create measures of quality. It may be important to identify certain aspects (aspects / total outputs) about the services, products or activities produced by an organization that are important to its customers. This comparison of specific outputs to total outputs is used to create measures of accuracy, timeliness and to determine the extent regulatory requirements are met. Quality measures can also be derived from the evaluation of customer feedback data. See expressing measures with two or more variables. Examples include:

Timeliness

- Busy signal rate
- Percent of drivers licenses issued within one hour.

Accuracy

- Percent of applications requiring rework due to internal errors.
- Taxpayer error rate on tax returns.

Requirements

- Percent of wells meeting minimum water quality requirements.
- Percentage of clients that rated themselves as successfully rehabilitated.

Meeting Customer Needs

- Percentage of customers that rated service good, very good or excellent.

Outcome

Outcome measures are used determine the extent to which a core function, goal, activity, product, or service has impacted its intended audience. These measures are usually built around the specific purpose or result the function, goal, service, product, or activity is intended to deliver or fulfill. An outcome measure should show progress towards or

achievement of agency mission or goals. See expressing measures with two or more variables. Examples include:

- Highway death rate
- Crime recidivism rate
- Percent of persons able to read and write after attending a remedial
- education course
- Percent of entities in compliance with requirements
- Percent of clients rehabilitated
- Percent of cases resolved

CONCLUSION

In conclusion, the investigation into the factors influencing career advancement and salary optimization strategies for HR professionals in global organizations reveals a tapestry of best practices and insights. Summarizing the key points, we find:

Personal Growth and Skill Development: HR professionals must continuously enhance their skill sets, industry knowledge, and adaptability to navigate the dynamic corporate landscape successfully. Investing in personal growth and embracing emerging trends empowers professionals to excel in their careers.

Strategic Acumen and Market Awareness: Achieving salary optimization requires a keen understanding of negotiation techniques, market dynamics, and industry benchmarks. HR professionals who strategically align their compensation expectations with market realities are well-positioned to secure remuneration packages that reflect their true value.

Integration of Individual and Organizational Objectives: The synergy between personal development, strategic HR frameworks, and organizational support is crucial. By aligning HR

strategies with broader business objectives and fostering an enabling organizational culture, HR professionals can unlock their true potential and drive exceptional results.

Embracing Change and Continuous Learning: Successful HR professionals embrace the ever-changing nature of their field. Staying ahead of the curve through continuous learning, adaptability, and embracing technological advancements enables professionals to transcend conventional boundaries and thrive in a rapidly evolving environment.

Unleashing Boundless Possibilities: By harnessing the factors influencing career advancement and salary optimization, HR professionals have the opportunity to forge extraordinary career trajectories. With the right knowledge, tools, and inspiration, they can unlock boundless possibilities for both personal and professional fulfillment in global organizations.

In conclusion, the journey towards career advancement and salary optimization for HR professionals in global organizations demands a harmonious integration of personal growth, strategic acumen, and organizational support. By embracing continuous learning, market awareness, and a forward-thinking mindset, HR professionals can navigate the complexities of their field, unlock their true potential, and seize remarkable opportunities in pursuit of their professional aspirations.

As important as productivity is to the continued economic development of the world, it is surprising that so little is known about measuring and managing it. Part of the problem may lie in the unit of analysis industry uses to measure productivity and in a failure to recognize the complexity of the relationships between the productivity of the individual worker and the total performance of the organization. The body of research knowledge provides little help. A multitude of micro studies of individual work behavior exist, but the measure of productivity used is seldom comparable to those developed in industry. Organizational studies generally focus on the total performance of the organization, but even those that are centered on organizational productivity rarely attempt to disaggregate findings to the business unit, work group, or individual level in any systematic way.

In a general sense, the productivity of the world is a function of the productivity of each of the world's economies; the economies, in turn, are as productive as the organizations within them. Within the organization, individual workers performing specific jobs form the base level for all productive endeavor. In modern, complex organizations, however, the linkage between individual productivity and the productivity of organizational systems becomes blurred. For a variety of reasons, the linkages are seldom one to one. Only by understanding the individual

level of productivity, however, can practitioners and researchers begin to build the theories and models that deal with the dysfunctions

and synergies that occur when individuals are grouped into work teams, departments, organizational systems, and economies.

It is important to note at the outset that focusing on individual productivity measures provides a myopic view of the organizational world. Organizations are set in the context of a changing, competitive environment in which strategies are developed to guide the efforts of management and workers toward a common vision and set of objectives. Even the best-designed processes will fail without a supportive culture within the organization that values change, continuous improvement, goal commitment, group cohesion, and respect for people. Every concept in this chapter assumes that the individual worker and the work group are set in an organizational context that is internally consistent and environmentally consonant

It is also important to note that productivity, although a major concern, is not the only indicator of individual or organizational performance. Productivity interacts with other aspects of employee performance, financial controls, innovation, and competitive effectiveness—any one of which can lead to organizational failure. My purpose in this chapter is to assimilate

knowledge about the measurement and management of individual productivity in order to provide a link in the chain of understanding regarding how individual productivity contributes to group productivity, which in turn contributes to organizational productivity. My intent is to aggregate existing knowledge and propose some theoretical foundations in order to reveal areas in which theory development and empirical research are needed. Throughout, I make an effort to bridge the gap between the concerns of researchers and the needs of practitioners in industry

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