Collaborative Management

management techniques

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About the Tutorial

Collaborative management can be broadly seen as the act of working together as a team to accomplish a common goal within a given timeframe. This is a brief introductory tutorial that explains the methodologies applied in the rapidly growing area of collaborative management.

Audience

This tutorial will be useful for students from management streams who aspire to learn the basics of Collaborative Management. Professionals, especially project managers, regardless of which sector or industry they belong to, can use this tutorial to learn how to apply the methods of collaborative management in their respective project environments.

Prerequisites

The readers of this tutorial are expected to have a basic understanding of how a project manager would deal with a complex project having multiple dimensions and accomplish it without overshooting his resources.

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1. INTRODUCTION

Collaborative management can be defined as a collection of various management techniques that enlighten a sense of unity and teamwork among managers, supervisors, and the employees within a business organization. It can be broadly seen as the act of working together as a team to accomplish a common goal within a given timeframe.

The concept behind collaborative management style is to:

- allow managers to combine their strengths with the strengths of their team
- make it possible to collectively overcome any weaknesses found among the team members
- enhance the efficiency and productivity of all the company.

Management By Objectives

Management by objectives (MBO) is a process of defining objectives to be achieved within an organization so that the management and the employees agree to the objectives, and understand their roles and duties towards the organization in order to achieve them.

The MBO process involves five steps:

1. **Review organizational objectives**: The manager gains a clear understanding of organization's overall objectives.
2. **Set worker objectives:** The manager and the workers meet to agree on worker objectives to be achieved by the end of a given time period.
3. **Monitor progress**: At regular intervals during the normal operating period, the manager and the workers check to see if the objectives are being reached.
4. **Evaluating performance**: At the end of normal operating period, the worker's performance is measured by the extent to which the worker reached the objective.
5. **Give reward**: Rewards are given to the worker on the basis of the extent to which the objectives were reached.

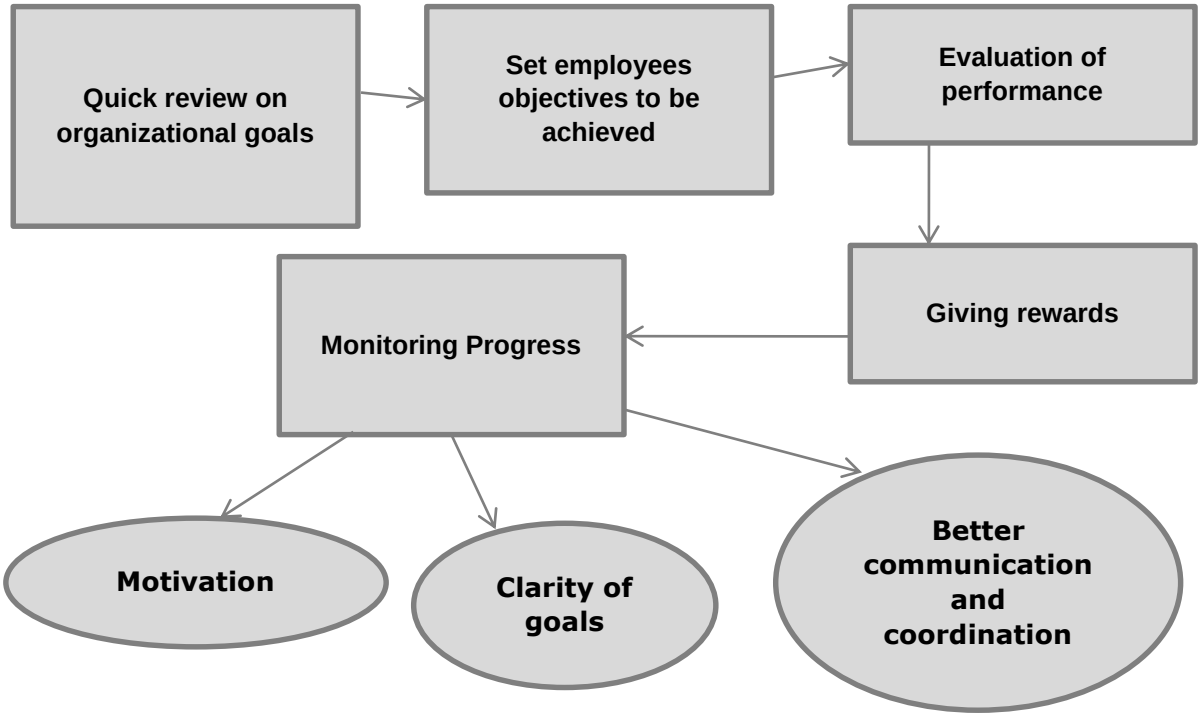

Figure: Steps of MBO

Some of the important advantages of MBO are given below:

- **Motivation** – It encourages employee job satisfaction and commitment.
- **Better communication and Coordination** – Frequent reviews, and interactions between superiors and subordinates builds harmonious relationships within the organization and solves problems.
- **Clarity of Goals** –Subordinates tend to have a higher commitment towards the objectives they set for themselves than those imposed on them by others.

Need for Collaborative Management

In her 1994 Harvard Business Review article "Collaborative Advantage", Rosabeth Moss Kanter mentioned about leaders who recognize that there are critical business relationships that cannot be controlled by formal systems but require a dense web of interpersonal connections.

Followed by a book published in that same year, Chrislip and Larson learned that collaborative management needs a different kind of leadership. It needs leaders who can safeguard the process, facilitate interaction, and patiently deal with high levels of frustration.

In 2013, Harvard Business Review authors Nick Lovegrove and Matthew Thomas explored the complex relationship between the business, the government, and various social sectors. Their research suggests that the future of collaborative leadership

depends on the ability of leaders to engage and collaborate with the business, the government, and the social sectors.

Features of Collaborative Management

Some of the significant features of collaborative management are as follows:

- It is based on the principle of active participation of all team members in the planning and control process as well as in networking those using information, communication, and collaboration modules.
- Management is not regarded as an activity reserved solely for managers but as an integral part of the team work of all team members.
- It creates a high level of transparency and a shared awareness of quality among team members.

Collaborative Processes

A collaborative process scores over a traditional process in many ways:

- Collaboration is understood by participants as a perspective and a way of relating with each other as well as the organization; not merely a tactic, or a set of skills or tools.
- It gives a clear and elaborative way to achieve the goal through joint work.
- Trust among the members overcomes initial hesitance or suspicions.
- Participants work to satisfy, not just their own but the interests of all members and the organization.
- There is wide inclusion of, and openness to, all needed perspectives.
- The collaboration produces tangible, substantial, and sustainable results by moving from formational stages to joint participation and action.

Collaborative Decision Making

Collaborative Decision Making (CDM) is a joint initiative aimed at improving the flow management through increased information exchange among the superior and the subordinates.

CDM is an operating paradigm where decisions are based on a commonly shared view of the leaders and the team members, and an awareness of the consequences of the mutual decisions made.

The following diagram shows collaborative decision making:

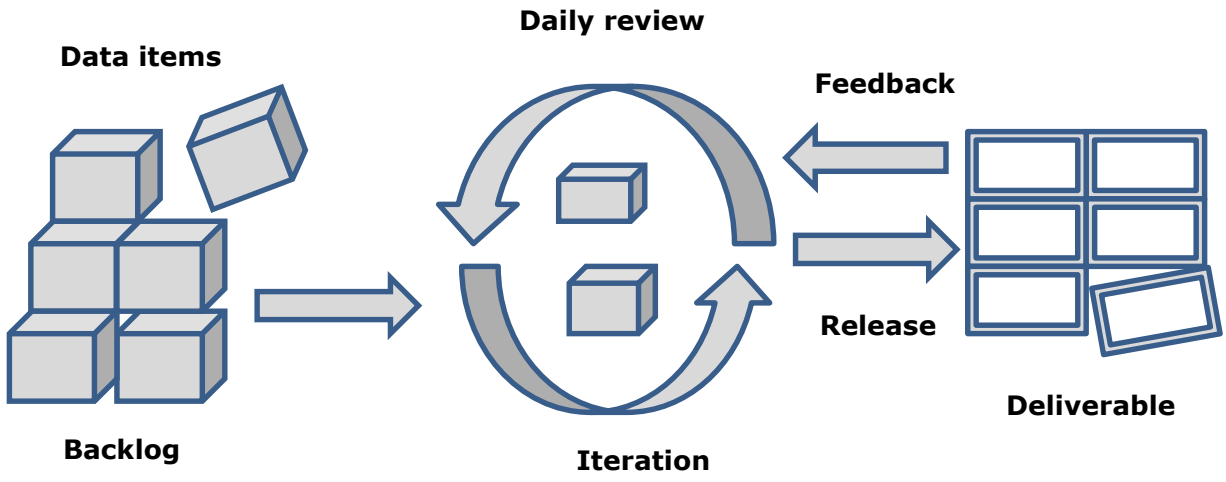

Figure: Collaborative Decision Making

There are two central assumptions to CDM:

1. Better information will lead to better decision-making. Tools and procedures need to be in place in order to respond easily to changing conditions.

2. By sharing information, values, and preferences, team members learn from each other and build a common pool of knowledge, resulting in decisions and actions that are most valuable to the system.

2. COLLABORATION SYSTEM

A collaboration system consists of a set of tools that create a workflow of information to specific teams and their respective team members. This allows individuals to share their ideas and talents with other members so that the task can be accomplished both efficiently and effectively.

There are numerous factors that influence a collaboration system, but there are two fundamental aspects that not only need to be customized according to the goals, but also need to be taken into consideration when it comes to corporate culture. These two are:

1. **Unstructured collaboration** Chasing answers to the unknown questions, using tools to share information about the problems at stake, and increasing personal productivity.

2. **Structured collaboration** Sharing common knowledge, written rules, structured and set workflow that does not change.

We will basically focus on **structured collaboration**, as it is widely used in all sectors.

Structured Collaboration

Structured methods of collaboration encourage introspection of behavior and communication. These methods mainly aim to increase the success of the organization as the team gets engaged in collaborative problem solving.

Positive Aspects of Structured Collaboration

- It is easy to organize.
- It is excellent for hierarchal structured organizations.
- It increases proficiency.
- There is no contradiction in relation to information.
- All members on the team understand and acknowledge their position and act accordingly.

Limitations of Structured Collaboration

- It does not foster innovation.
- There is same workflow information with no variance at all.
- It can cause groupthink and conflicts.
- It is intended for repetitive industry.
- It needs to be managed and supervised all the time.

Collaboration According to Corporate Cultures

In order to create a collaborative working environment, the employees need to be motivated and rewarded at times.

- For example, a structured collaboration would not fit in the Google corporate culture because Google is very innovative, and loaded with new ideas and challenging unanswered questions. In a structured collaboration, innovation would be non-existent because of the boundary of common knowledge.

- On the other hand, a structured collaboration model would fit well under a manufacturing company like MRF because constant workflow is critical to the organization's output.

In addition to corporate culture, the structure of the firm needs to be examined and evaluated first to get a better understanding of which collaboration model would best fit in.

3. LEADERSHIP STYLES

Put simply, collaborative leadership is the type of leadership required to get effective and efficient results across internal or external organizational boundaries. A collaborative leader invests time to build relationships, handles conflicts in a constructive manner, and shares control. In contrast, traditional leadership is more autocratic where the leader takes absolute control over his team and takes decisions without consulting his team members.

This chapter describes the difference between traditional leadership and collaborative leadership.

Figure: A Traditional Leader

Figure: A Collaborative Leader

Let's find out how collaborative leaders differ from traditional leaders when it comes to dealing with Power, Information, Idea Generation, Problem Solving, Resource Allocation, Rules and Responsibilities, and Resolving Issues.

Power

Traditional Leaders: The traditional corporate approach to power is in one singular authority. Old school corporate hierarchy often bestows power based on longevity giving secondary look at prior results.

Collaborative Leaders: The new approach of collaborative leadership recognizes that power is greatest in a collective team. Collaborative leaders allow solutions to develop from the best ideas of the group and take a team approach in problem solving.

Information

Traditional Leaders: They maintain ownership of information as their hallmark. Access to information is power. Releasing information on a "need to know" basis allows traditional leaders to maintain authority and control.

Collaborative Leaders: They believe open information sharing is the cornerstone of success. More the availability of cross training, more will be the opportunities to develop and implement creative approaches to problem solving.

Idea Generation

Traditional Leaders: Traditional managers *occasionally* entertain suggestions or are open to ideas from their team members. In a top-down hierarchy, the decisions generally come from the executives at the top of the hierarchy, as information is closely guarded and withheld from team members.

Collaborative Leaders: The art of collaboration gives everyone on the team a voice. Leaders are generally open to suggestions and ideas from their team and recognize that brainstorming and different perspectives can bring unique insights.

Problem Solving

Traditional Leaders: In a traditional corporate culture, solutions are generally delivered to team members. There is no active and equal participation of team members.

Collaborative Leaders: In a collaborative environment, solutions are brainstormed among team members and facilitated by the management. They recognize the power of a group approach in solving a problem.

Resource Allocation

Traditional Leaders: The traditional approach to resource allocation is generally reactive. Resources are allocated by the upper management, only when it is badly

required and that to when the situation is brought to a committee for approval prior to the deployment. This process takes the focus away from the project and it results in stress being placed on the team by forcing them to deal with issues and challenges without the necessary resources.

Collaborative Leaders: A collaborative environment is based on trust and resources are being delivered proactively.

- Team leaders enable their teams to flourish by providing them the required resources and allocating time, quickly.

- This allows projects to be developed more rapidly, as employees have access to the corporate resources (time, money, materials) that are necessary to do their jobs effectively and efficiently.

Rules and Responsibilities

Traditional Leaders: Traditional corporate culture relies on a series of policies, rules, and regulations. The culture is followed by a hierarchy that forces the managers and the team leaders to adhere to a specific set of roles and responsibilities.

Collaborative Leaders: In a collaborative environment, teams are encouraged to work together. Information, resources, knowledge, time, and efforts are shared. This allows roles and responsibilities to evolve and fluctuate. Based on the greater good, further responsibilities and power are distributed.

Resolving Issues

Traditional Leaders: In a traditional culture, issues are often dealt with on an individual basis with no regards to the root cause of the problem. Managers spend half the time firefighting instead of instituting beneficial change that could prevent issues.

Collaborative Leaders: The basis of collaborative leadership is trust, because team members are given more responsibility for their work and leaders are often more involved in the process. Collaborative leaders look for the root cause of the conflict as it arises, and address the issues promptly to keep the work moving forward efficiently.

Performance and Feedback

Traditional Leaders: Most traditional corporations practice a semi-annual or annual review process based on corporate policy. If member has had a banner year, but in the last month missed a deadline or a project they were managing encountered some bugs, it can result in a negative performance review and the member may feel they were unfairly judged and may seek greener pastures elsewhere.

Collaborative Leaders: The nature of a collaborative environment means that superiors and the subordinates are equally valued. They work closely together on a daily basis. A collaborative environment is nurturing and offers the opportunity to

share knowledge and experience among each other as well as educate members on an ongoing basis.

Skills and Attitudes

There are three essential skills.

- Mediation - Collaborative leaders should be able to address a conflict constructively and effectively as soon as it arises. This is a demanding skill. In collaborative leadership, handling conflict and the associated mediation skills are often the number one leadership development priority.

- Influencing - Collaborative leaders should be able to share control and choose the best approach in influencing other team members. This requires complete understanding of the organizational culture and personality type of their team members as well as an objective analysis of the business situation to handle.

- **Engaging others** - Skills of networking and relationship building play a major role in successful collaborative leadership. This means communicating with clarity, managing high-stress situations, and involving other team members in decision-making at the right time.

In support of these three skills, collaborative leaders should hold the following three additional essential attitudes.

- **Agility** - Complex collaborative situations require a forward looking attitude of mind, coupled with an ability to quickly assimilate facts and ask incisive questions and take required actions.

- **Patience** - Managing relationships takes time and collaborative leaders need to be able to take a calm and measured approach, reflecting on new information, being supportive, encouraging and giving confidence to others.

- **Empathy** - A collaborative leader must be underpinned by a willingness to truly listen and be open-minded to the views of team members.

Only with these attitudes can the leaders develop a high degree of self-awareness required to accurately assess the impact of their behavior on others.

Traits of Collaborative Leadership

Collaborative leaders share four leadership traits which are discussed here in this section.

Focus on authentic leadership and eschew passive aggressiveness

For a collaboration to succeed, leaders need to be authentic. The most critical attribute for a collaborative leader is the willingness to follow through commitments. This involves the following elements:

- First, as a team leader of the department or business unit with people, budgets, and resources under control, one must follow the organizational commitments.

- Second, the more a leader focuses on communicating what drives their decision making, the more time they can spend making good decisions instead of arguing with a peer. This leads us to the next leadership trait.

Relentlessly pursue transparent decision-making

Decisions are always about making choices, hence it is critical that leaders are clear about the choices they make.

- A collaborative leader should be open and transparent about the answers to three questions — who made the decision, who is accountable for the outcomes of the decision, and is that accountability real?

- A leader's responsibility is to document the key decision paths of his organization and communicate them to his team members as often as he can.

View resources as instruments of action, not as possessions

The promise of flexibility and agility by an organization, inspired by establishing shared goals across organizational boundaries, is only attainable if the leaders back it up by sharing resources as well.

The fundamental enablers of collaborative leadership are viewing resources as tools of action rather than as possessions and aligning their company's larger shared goals to an accountability system that includes rewards and incentives for working together effectively and efficiently.

Codify the relationship between accountability and rewards

Collaboration demands more distributed and empowered actions across a company. With that empowerment, not only more good outcomes but also increased potential for the bad ones result.

A collaborative leader will need to consider new ways of gaining input from teams on the quality of collaborative decision-making and reward people who consistently make good decisions in a collaborative environment.

Are You a Collaborative Leader?

You can discover whether you are a collaborative leader or not by assessing yourself on the following questions:

Play Global Connector

- Are you a part of a global network like 'Youngistaan' Organization?

- Do you regularly blog or tweet employees about trends, ideas, and the people you encounter outside your organization?

- How often do you meet with parties outside your organization who are not directly relevant to your immediate job demands or current operations?

- Are you on the group of any outside organizations?

- How diverse is your immediate team in terms of nationality? Gender? Age? Religion?

Collaborate at the Top First

- Do members of your group have any joint responsibilities beyond their individual goals?

- Does the compensation of your direct reports depend on any collective goals or reflect any collective responsibilities and duties?

- What specifically have you done to eradicate power struggles within your group?

- Do your reports have both performance and learning goals?

Show a Strong Hand

- Do you manage dynamically—forming and disbanding teams quickly as a situation arises?

- Do the right people in your company know they can "close" a discussion and make a decision?

- Does your group debate ideas vigorously but then unite behind the decisions made?

4. COLLABORATIVE APPROACH

A collaborative approach is made not only in the corporate sector but in every professional as well as personal fields in solving disputes and taking effective and efficient decisions.

Collaborative Approach in Problem Solving

The Collaborative Problem Solving (CPS) model demonstrates effectiveness with employees with a wide range of professional, social, emotional, and behavioral challenges across a variety of different settings from various consumers, clients, team leaders, and team members in the company.

As applied to the organization, the model sets forth two major tenets:

- First, the problems are well understood in terms of the cause, the issue, and the bugs present. (rather than pointing out mistakes of the team members)

- Second, these problems are best addressed by mutual discussions where everybody speaks and everybody listens (rather than showing superiority and trying to dominate other members).

While solving a problem through collaborative approach, we must know that we are going to encounter unique alternatives for the single problem by different team members sharing a common idea to give the best way out of the problem.

Collaboratively resolving problems isn't necessarily all that complicated, but it's something for which the leaders need to have experience as well as patience, so it can take a while for all involved members to feel comfortable and keep their views open.

Plans of CPS

When a task completed doesn't meet the objective to be achieved, we need a **plan**. CPS makes explicit those who really only have three options for how to respond to problems solving. We refer to these as our three Plans: Plan A, Plan B, and Plan C.

Plan A is very popular because we have good expectations from the team members, but pursuing those expectations using Plan A also greatly heightens the likelihood of challenging ideas from different members. That's because the team leaders impose their will upon the trainees – that requires a skill that the trainees lack. So Plan A not only causes challenging behavior, but it does not teach the skills the trainees' lack.

Plan C is being strategic. We can't work on all the problems at once, and neither can all the objectives be achieved at the same time. Plan C is a way of prioritizing and deciding which tasks need to be accomplished first. By putting some problems or

unmet expectations on the **"back burner"** while addressing problems that are of a higher priority, some challenging behaviors are reduced.

Plan B involves four basic steps.

1. Identifying and understanding the trainee's concern and opinion about the problem.

2. Identifying and sharing the leader's concerns about the same issue.

3. Brainstorming solutions and sharing views together with the leaders and trainees.

4. Working of the trainee and the leader together to assess potential solutions and choosing one that is both realistic, mutually satisfactory, effective, and efficient.

Plan B usually feels like slogging through mud in the beginning, but the continuous use of Plan B helps solve problems that are precipitating challenging behavior in a durable way while building healthy professional relationships, thinking skills, intrinsic motivation and confidence to achieve the objectives within a given time period.

The following illustration depicts collaborative problem solving:

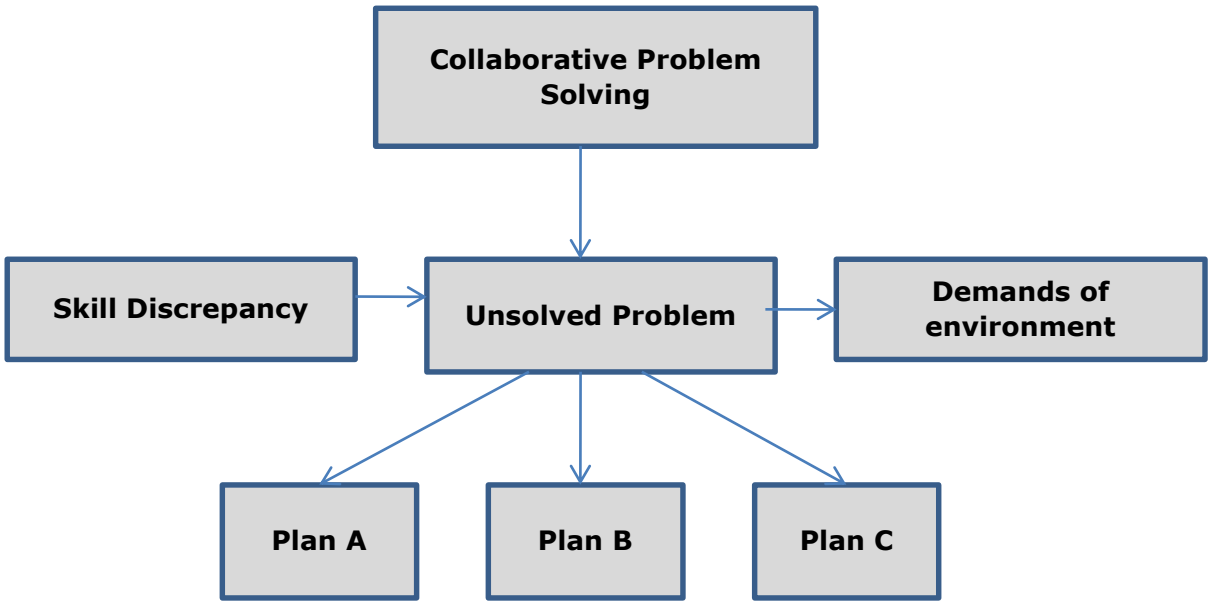

Figure: Collaborative Problem Solving

Collaborative Approach in Wicked Problem Solving

Many Programs present complex problems that are difficult to resolve, but some throw up truly 'wicked problems' that project management professionals find absolutely impossible to tackle. These wicked problems are often difficult to define and are informed by a web of conflicting views from many team members typically from across organizational boundaries.

Project managers can address such wicked problems by adopting a collaborative approach that focuses on the underlying causes of the problem. Such an approach to resolving wicked problems includes three key features:

1. A commitment to engage team members.
2. Judgment based on both qualitative and quantitative techniques.
3. Focus on results and benefits.

Team members engage in a collaborative journey of consultation and engagement with wicked problems. There are invariably a wide range of opinions and ideas on the nature of the problem and the 'right' solution. By bringing all the affected parties together, project managers can build a sense of shared ownership so that commitment to solutions and their delivery becomes much more likely.

5. COLLABORATIVE TOOLS

Collaborative tools are classified based on their level of functionality concerning collaboration and document managing capability. Tools can be grouped according to their capacity to handle the following four activities:

- Group and File Document Handling
- Computer Conferencing
- Electronic Meeting System
- Electronic Workspace

Group and File Document Handling

The core functionality of this category involves working with documents and handling files.

- Employees only have a shared view and limited access to files/documents, while there is also a possibility for individual editing, documenting/managing files, and storing it in a central database, as well as collective authoring and revision of documents.

- Synchronous work on documents can also be a part of a group document handling tool in addition to basic communication capabilities such as e-mail notification and tweets.

Computer Conferencing

There is a possibility that employees see and work on documents simultaneously, or on each other's screen.

- Computer conferencing provides space for asynchronous and threaded meetings as well for real-time text talk and real-time meetings. Files and documents are shared.

- Audio and video conferencing are quite common mode of communication.

Electronic Meeting System

Meeting conduction is the basic functionality of any business organization.

- Meetings can either be regular (same time, same address), synchronous (same time, different address), or asynchronous (different time, different address).

- Members of the meetings are notified through mail, and they can chat, conduct real-time discussions, using audio and video conferencing facilities. Members

can also participate in surveys (anonymously if preferred), make group discussions, and share documents and files.

- Participants can show and annotate Power Point presentations, share live software applications, and even work simultaneously on documents.

- Finally, meeting-centered activities support the meeting process including its set-up, maintenance of the agenda, and distribution of the minutes after the meeting.

Electronic Workspace

The primary idea of having an electronic workspace is to provide team members with a common space to coordinate and organize their work.

- Teams can centrally store documents, work with them, solve problems through discussions, keep to-do lists and address books with information about group contacts, and even track project milestones and project interactions.

- There are workspaces for different teams, and individuals may be members of several workspaces.

Certainly, the above classification is not limited. There are several other functional-level categories such as Electronic mail, Electronic calendaring, Work own, Group decision support, Collaborative writing, and electronic learning.

6. THE ARC'S MODEL

ARC's Collaborative Management Model

ARC's Collaborative Management Model (CMM) is a platform to streamline all the complex interactions, applications, collaborations, and processes that an enterprise holds.

- ARC is unique in describing all the processes in an enterprise using three intersecting axes which are at the heart of the CMM Model. Take a look at the following illustration.
- CMM is the framework for organizing, establishing and controlling the key business processes of an enterprise.
- It maps existing conditions and a migration path for progress. In other words, it aligns manufacturing IT investments with their business strategy.

The following illustration depicts The ARC's CMM model:

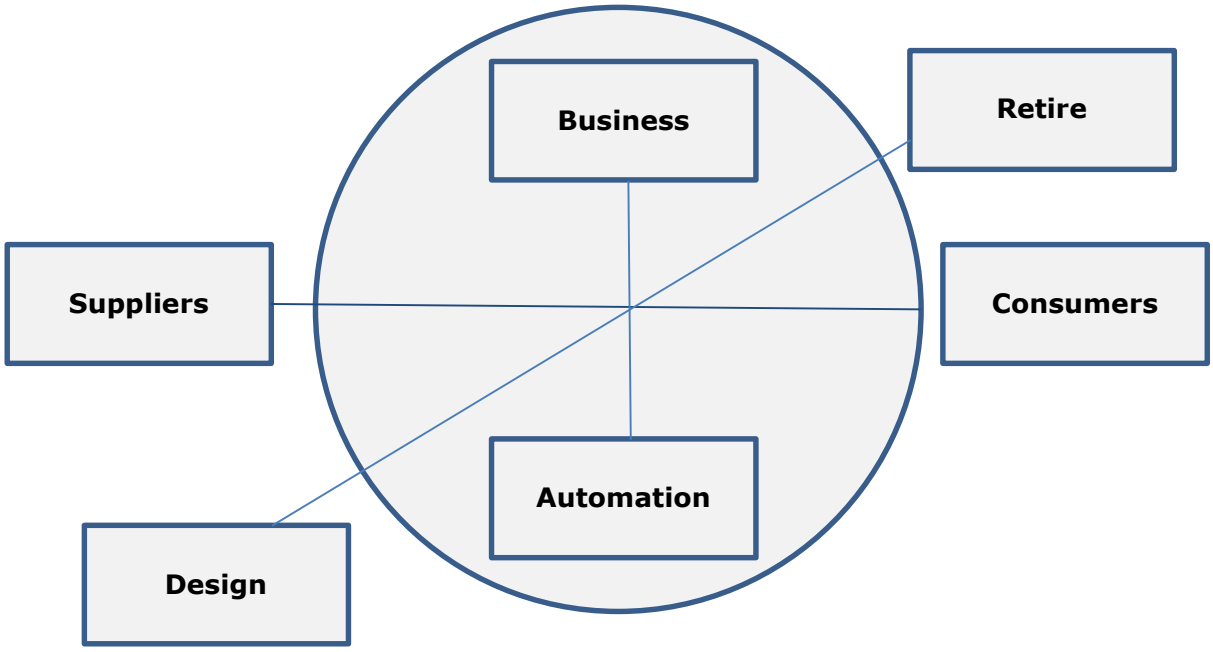

Figure: The ARC's CMM model

How are the People Affected?

ARC has found through customer visits, consumer surveys, and client interviews that nearly all companies are struggling with these questions:

- How can we leverage our existing technology to realize real measurable financial savings?
- Where can we get the best ROI when implementing new innovations?
- How do we get the broader team aligned as an agent for significant positive change?

After mapping the applications with the model, opportunities are more easily identified, communicated, and acted upon. With ARC's CMM, we gain a clearer perspective for determining design, architecture, technology, applications, business processes, integration needs, user benefits, and return on investment (ROI). It helps justify the project plan and capital budget.

What are the Benefits of CMM?

CMM can ensure improved costs, quality, asset utilization, and customer satisfaction with a significant financial impact. In addition, CMM can provide the following benefits:

- Using CMM not only helps in sharing information, but it also operates in the context of a broader business process workflow.
- Applying CMM to operations provides a foundation for managing business processes and the next level of operational performance.

The CMM model provides a starting point for a team to define their company's specific strategy and build consensus. The output is a credible plan with clear business benefits.

7. THE ESSIM INITIATIVE

The ESSIM Forum is a collection of all organizations, groups, and individuals having an interest in the ESSIM Initiative.

Principles

The proposed principles that provide the foundation for the ESSIM Collaborative Planning Model include the following:

Jurisdiction

- The ESSIM initiative seeks to create an integrated framework by including all mandates and departments, agencies, and groups within the planning process.
- The plan should be consistent with the interests of responsible authorities.
- Government sector meetings take place within a two-part structure. The Regional Committee on Ocean Management (RCOM) and the Federal-Provincial ESSIM Working Group has the ability to work horizontally.

Inclusion

- The ESSIM Initiative is as open as possible at all levels, given the limitations of the ESSIM Forum and the Stakeholder Roundtable.
- Complete, active, and effective participation of all sectors and interests is essential.

Consensus

- Consensus is achieved and maintained through stakeholder collaboration, which is the fundamental principle of the ESSIM Initiative.
- Participants work towards consensus in good faith. The process is designed in such a way that lack of consensus cannot be used as a tactic for delay.
- In the absence of consensus, the practices of respective government departmental mandates are used in decision-making processes.

Accountability

ESSIM members are accountable to their constituents for specific results and to each other for defining and achieving collective goals. Members are also accountable to each other to ensure that their input is fully informed and reflective of constituents' views and interests.

Dispute Resolution

For effective dispute resolution, it is better to have a multi-level system that can be used as required to assist parties to discuss differences in understandings, perspectives, styles, interests, values, and institutional structures and processes.

Network

An efficient network provides opportunities for dialogue and consensus at several levels and among various configurations of participants. It also confirms the authority and responsibility of existing organizational mandates.

Learn by Doing

After years of preparation, presently ESSIM has several working groups developing ecosystem and human use objectives for a pilot area. ESSIM formally adopts an adaptive approach that allows it to plan, act, learn, adapt, and move forward through the use of a structured, disciplined approach to dialogue, as well as using the best available science.

Collaborative Planning Model

This section includes ESSIM Forum, Stakeholder Roundtable, and the Planning Office.

The ESSIM Forum

It is a collection of all organizations, groups, and individuals who are Stakeholders i.e., they may be influenced by, have the ability to influence, or have an interest in the ESSIM Initiative.

ESSIM Stakeholder Roundtable

The Roundtable is a broad representation of ESSIM sectors and stakeholders. It is not entertained that its size would increase beyond 26 (+ 2) members without taking some steps to aggregate interests or uses some other means to enable participation while maintaining a reasonable working size limit.

ESSIM Planning Office

The planning office includes expertise plan development procedures. It provides coordination and support for the ESSIM Forum and the Stakeholder Roundtable. It provides resources for conflict resolution when required, liaise with other regional, national and international processes, and provide coordination.

ESSIM Forum (Review/Input)

The ESSIM planning model is as shown below:

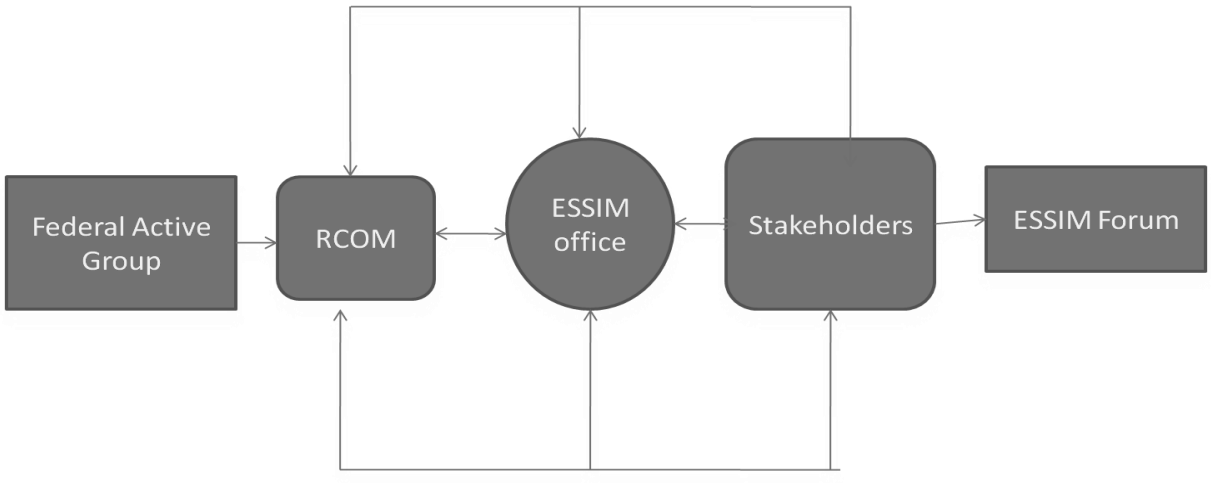

Figure: ESSIM planning model

The ESSIM Collaborative Planning Challenges

Few challenges require ongoing attention in the design and implementation of the ESSIM collaborative planning model. These include the following:

Ensuring full and effective representation and participation

The Planning Office needs to be prepared to provide direct and/or individualized chances for involvement to ensure inclusion of the views, interests, knowledge and concerns of all sectors.

Effective working with diversity

All multi-stakeholder processes include working with a number of various aspects of diversity. It includes recognizing, appreciating, and managing diversity holds an integral part of each process.

Horizontal coordination between multiple jurisdictions

The capacity and commitment of the government sector groups (i.e., Federal-Provincial ESSIM Working Group and RCOM) is critical because all the complexity associated with ESSIM is related to government mandates, legislation, regulation, and policies.

Although ESSIM affirms the primacy of individual jurisdictional mandates, it is intended that the parties seek consensus on integrated and collaborative outcomes.

Links with existing systems

There are a number of team processes that links to the ESSIM area, and it is important that effective links are established. Other processes include the Gully Marine Protected Area Advisory Committee, Coral Conservation Plan, and Scotia-Fundy Fisheries Round Table.

Physical boundaries

The boundaries of the ESSIM area are based on both ecological and political grounds. If the decision is made like increase the present boundaries, then the Planning Office needs to develop a consultation plan, specifically to involve the stakeholders who are engaged, as the boundaries expand.

8. COLLABORATIVE SYSTEM

A Collaborative System is an information system used to facilitate efficient sharing of data, documents, files, information, and knowledge between teams and employees in an organization.

Collaborative Risk Management

The probability that an unwanted incident occurs causing any kind of loss to a company is known as **risk**. In Collaborative Risk Management (CRM), the employees across the company collaborate seamlessly to determine and manage risks on a regular manner.

The basic duties of CRM are as follows:

- To promote adherence to standards and best practices (through consultancy and review) in fashion.
- To ensure a level of confidence in the stated technical approach such that the time and costs estimated are not undermined by radical changes during the project delivery phase.
- To ensure clear, specific, and appropriate information is available to allow business execution teams to complete their planning with respect to the given time bounds and costs.

CRM in Lifecycle of a Product / Solution

The CRM approach implies that risk management function invokes in the entire lifecycle of the product. In each of these phases, the CRM risk function is essential for assessing and addressing risks.

Idea Generation Phase

In this phase, new ideas are entertained as well as invited by anyone from the company and are documented in a Business Proposal ready for assessment.

- Ideas are filtered and selected on the basis of strategic alignment, business value, and executive risk.
- The risk management team works with the Business planning teams that conduct SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis for the new project considering strategic alignment and business value of the idea.
- Major areas addressed under the weaknesses and threats sections are the different risks posed to the product / solution idea.

- At the end of this phase, the proposal is reviewed thoroughly at the Idea Approval Checkpoint. This checkpoint acts as a filter and forwards only those proposals which have been passed to pursue.

- The result of this checkpoint will be pass / fail. Risks to the project / product or solution that are identified and evaluated are essential components in the go-no-go decision-making process.

- After the Business Proposal is passed, a collaborative management team is created for the project that includes risk management responsibilities.

Business Planning Phase

After the Proposal is approved and passed through the Idea Approval Checkpoint (at the end of the Idea Generation phase), a Product / Solution Owner is assigned to design the product / solution plan, describing it in more detail.

- The output of this phase is a viable Product / Solution Plan. The plan is further reviewed followed by an acceptation or rejection at the Project Initiation Checkpoint.

- The purpose of this checkpoint is to confirm that the business proposal is still viable.

- During this phase, the role of the CRM team is to have a thorough study regarding the product landscape in the context of the organization's environment and determine various risks the product faces so that these can be factored in the plan.

Definition Phase

During this phase, the deliverables are defined with thorough detail regarding the product so that it can be developed further. Basically, a project plan is produced that describes the overall schedule and critical path.

- In this phase, the business owners and the CRM team work collaboratively to address compliance with commercial, technical, and services governance policies.

- During this phase, the CRM Team is accountable for the go-no-go decision of the 'Project Architecture'.

- During the Definition phase, the product plan is designed with details from the project plan that defines how the Commitment Checkpoint reviews the work during the Definition phase to check whether the product is ready to move into the delivery phase with all the risks identified in consultation along with the CRM team.

- Additionally, it also confirms that the business proposal remains viable as well as feasible.

Delivery Phase

During this phase of the product lifecycle, the main deliverables are produced and the product is handed over to the working teams.

- The end of the Delivery phase is highlighted by a Fitness for Launch Checkpoint.
- This is the checkpoint when the project transforms from delivery to deployment.
- During this phase, CRM ensures that risks in all major deliverables are addressed prior to the launch of the product. These deliverables includes a variety of elements like product, infrastructure, content, administration, systems, and processes.
- A Fitness for Launch Risk Review is set up in a collaborative setting, the output of which is recorded in the CRM Scorecard.
- This Scorecard indicates the concerns as well as the queries related to unresolved technology standards, misalignment, or any other significant levels of risk.
- The function of this Fitness checkpoint is to confirm that the proposition is functional, scalable, stable, and ready to be presented to clients and that all the risks represented by CRM Scorecard have been addressed effectively.

Deployment Phase

During this phase, the product is handed over from the operational groups who have specified, developed and tested it to those who have to sell, administer, support, operate, and maintain it.

- This phase includes Ready for Revenue Generation Checkpoint.
- At the stage of Ready for Revenue Generation Checkpoint, the CRM team gives the approval that the product can be sold, administered, and supported in a target region without putting the organization at risk.
- It confirms that the product is up to the agreed performance targeted in the production environment, is free from any significant known risks, and is ready to be supported on general release.

Monitoring Phase

In this phase, the CRM team is responsible to review risks associated with the product in an ongoing manner.

Obsolescence Phase

During this phase, products that are no longer feasible or viable are retired or replaced with products that better support the organizational strategy.

- It includes Closure Checkpoint.
- The purpose of the Closure checkpoint is to formally confirm that the product has achieved its end of life. It confirms that all product vestiges have been eliminated, and no corporate resources remain allocated to its support, maintenance, or further enhancement.

The following illustration depicts CRM phases:

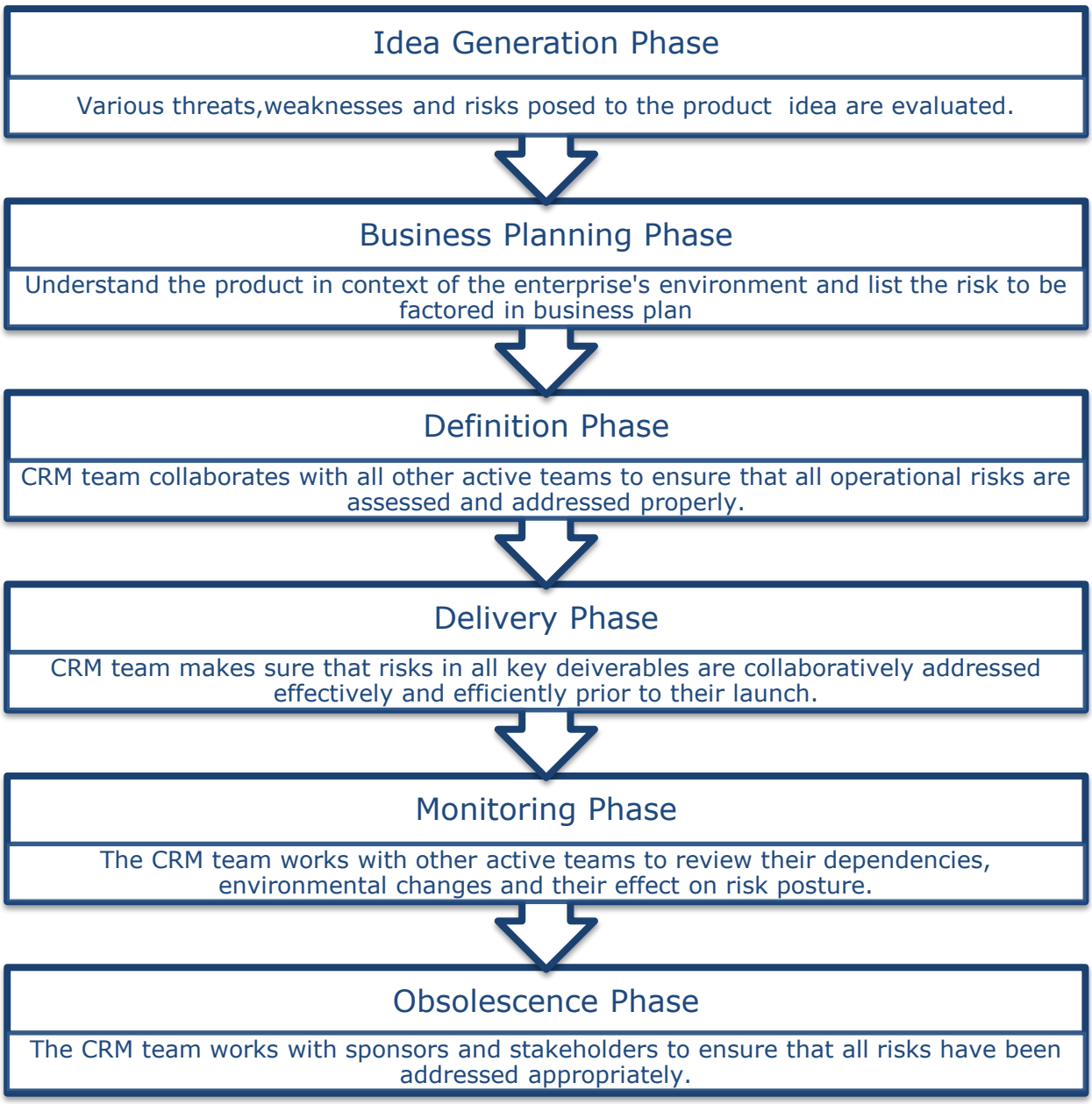

Figure: CRM phases

Advantages of the CRM Approach

The CRM approach offers several advantages which are discussed below.

1. **Shared ownership** – Greater ownership is fostered among teams to understand and address risks.

2. **Decentralized implementation** – The risk assessment and management function works across the company in a decentralized manner wherein working teams across the major functions of the company implement it in collaboration with the CRM team.

3. **Optimal resource utilization** – Since the CRM team works with active working teams from the beginning, risks are identified and addressed before they actually emerge. Hence resources get utilized in an optimum manner.

4. **Leveraging of consumer's understanding of the domain** - In this approach, the management is assured that risks are being looked at from the requisite diverse perspectives and most key risks are addressed by the time the product comes up for a launch. Once eradicated, a periodic review ensures that new emerging risks are identified early enough to be attended before they become disasters

Ways to Create a CRM Program

How do we tackle enterprise risks in a corporation where all of the risk management functions are dispersed in differential line management? Yes, the ideal solution is to create a Collaborative Risk Management team. A CRM can be created in the following ways:

Being a leader in bilateral conversations of risk partners

There is a risk of the information flow being one way, and this is usually the case at the beginning. However, as the discussion continues over time, the information flow gradually becomes two ways. For example, you may start with a weekly global meeting with Facilities, Business Continuity and monthly meeting with Information Security and Compliance.

Conducting joint awareness programs

As a part of our "doing-more-with-less" strategy, we look for opportunities to work together on joint-awareness programs. For example, customers of a company don't separate physical security from information security, as they both are equally important. Thus, working jointly on a security awareness program often leads to greater points of collaboration.

Capitalizing on the success of low-hanging fruit

Reaching the heads of risk management functions to ascertain interest involving in an informal working group to share information and prioritize on a monthly basis.

- Ground rules are established for participation around confidentiality.
- A quick survey is done on the leaders of the functions on the gaps or threats they are most concerned with.
- Taking a lead in this area will solidify the leader as an influence in the group. Further, the group is persuaded with the benefits of formalizing it around an enterprise risk management program.

9. CHANGE MANAGEMENT

Change management is a process, an enterprise specialty, and a body of knowledge. The notion of change management as a process or task can be described as a double-edged sword.

- The first edge is applied to internal change in a sequential fashion within an ongoing company. The aim is to implement new methods and controlled systems more effectively in a company.

- The second edge of the change management sword is applicable to the changes over which the company practices little or no control (like legislation, social and political upheaval, etc.).

Change as a System

A systems approach involves two important foundations:

- First, it establishes that nothing can change without affecting every part of the system to which it belongs.

- Second, change in any single part of a system influences every other part of the system.

Systems can be categorized as either **open** or **closed** system.

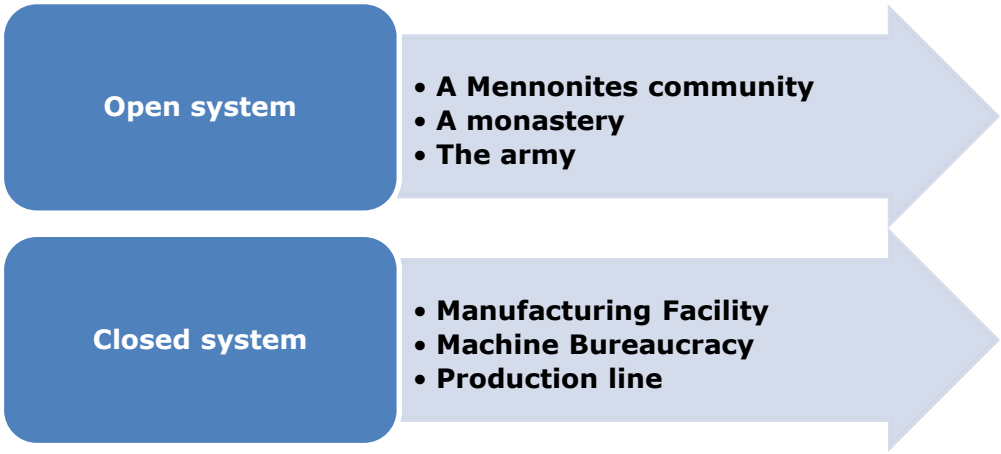

Figure: Open System vs Closed System

Open systems are highly responsive to the external environment. In contrast, closed systems are poorly responsive to environmental impacts. No system can be completely closed — the degree to which a system is open or closed is determined by the extent to which changes can be controlled.

The Change Problem

The change Problem includes one or more divisions or groups, the entire enterprise, or one or more aspects of the company's environment.

- The foundation of the system requires answers to at least these five "W"s and one "H" (Who, What, Why, Where, and When…then How).
- The following few examples can be used to formulate specific questions:
    - Who from the company needs to be involved in the change?
    - What exercises need to be changed?
    - Why do we need to change our ongoing practices?
    - Where the changes are needed the most?
    - When will the company consider implementation?
    - How to change our traditional practices for better?

Change Program Phase

The process model is structured in three phases:

1. **Phase 1** - **Creating the change foundation**: It focuses on aligning business elements and leadership through the making of new customer-focused goals, establishing sponsorships, and securing commitment and capabilities.
2. **Phase 2 - Designing the change plan:** It focuses on aligning the corporate mission with the change plan and determining the challenges.
3. **Phase 3 - Implementing the change plan:** It focuses on deploying change with the help of an effective communication program and client management.

Communication Process and Strategy

Communication plays a vital role in strategic, tactical, and personal levels in creating change. Communication is important to:

- Align employee and enterprise performance with business objectives.
- Enable clients to understand, and embrace change through education and persuasion.
- Deliver specific notes on the change (five W's and one H)
- Support feedback, review, and interaction to ensure ownership and success.
- Motivate to act.
- Involve through a strong "what's in it for me" approach.

- To be effective and efficient, a change management team includes minimum one communication expert, who is then supported by a team of communication specialists.

The duties of the change communication team include:

- Identification of issues that affects each segment having an impact due to the change.
- Determination of the combined communication tools needed.
- Assuring that appropriate feedback and review mechanisms exist.
- Creation of effective measures to assess communication efficiency and effectiveness.

Final Recommendations

These recommendations follow "to-do" list of tactics that can be deployed in managing change.

- **Be open to change**: Change is inevitable – it's how people handle and control it that gives a positive rather than a negative outcome for enterprise or individuals.
- **Remember:** The function of change management is to bring order to a chaotic and messy situation, not to pretend that it is already well organized, structured, and disciplined.

10. COLLABORATIVE PROJECT MANAGEMENT

Coordination and **collaboration** are the two essential components of handling a project. Coordination is within a location for traditional projects, and across locations for distributed projects. There is a need for Collaborative Project Management Architectures (CPMAs) in order to build systems that can overcome the challenges faced by traditional project management.

Traditional Project Management Scenarios

When team members or companies carry out project management (PM), there are many potential mistakes or pitfalls to which they can easily fall prey. Instead of highlighting them all, let's focus on a few common overarching themes identified in the literature. Combining together all of these themes account for the reason why many major projects either fail or are significantly less efficient and effective than they could be.

Over-emphasizing of PM as a Project Reporting Mechanism

Traditional project management often employs a simple passive reporting mechanism instead of a dynamic teamwork coordinating approach. In many companies, the project management methodology is assumed as a corporate reporting tool rather than an efficient system that the various parts of the company can use to help themselves. In this type of situation, information flow is less among project contributors.

Ineffective and Inefficient Communication

In traditional PM, communication may be ineffective due to many reasons:

- Misunderstandings due to inexplicit or poor communication.
- Members having a poor grasp regarding the problem.
- Different interpretations by different team members.

Communication is also inefficient or not up to the mark because of various reasons like:

- Untimely communication.
- Failure to update latest notification to every team member who needs to know.
- Poor communication skills and capabilities are mostly cited as the main reason for project failure.

Managing Project Inputs and Outputs but not Process

Another serious problem in traditional project management is that employees manage deliverables and resources, but they don't manage the process.

- Team leaders create PERT and plan the project within a timeline, they manage time, budget, equipment, human resources, and the product; but fail to manage work process.

- One reason for the failure of software projects is the lack of real-time improvement measurement systems to identify potential risks in the initial stages, before they become serious threats to the progress of the product.

- If employees only handle project inputs and outputs, the process remains a black box and project members are unaware of the fact that something has gone wrong until it is too late to correct the issue without causing large amounts of rework and increase complexity.

This results in making PM a reactive process, rather than a proactive one.

Reactive Management

Reactive management defines a passive PM strategy in which project managers conduct incomplete planning with a hope that everything will be fine in the end.

- Reactive project managers react to what has happened and they seldom plan for the future. They do not review their own or others' previous experiences to gain insight from lessons learned over time.

- In reactive management, employees spend a significant amount of project time on reworking deliverables and rectifying errors.

- Another common issue in reactive situations is almost all the rework must be done manually, including searching for work that is influenced by changes in other parts of the project.

Reactive Project Management is often accompanied by lack of systematic procedure for storing project information which leads to compounding the problems of poor planning and the need for rework.

Lack of an Electronic Project Repository

Lack of an electronic repository is a company-wide problem as well as a project–specific issue. A paper-based repository has several limitations like:

- Retrieval delays

- Lost documents

- Incomplete files and storage problems

- Error proneness due to data extraction, interpretation, and repackaging.
- Difficulty in coordination and failure under given time constraints.

Lack of an electronic project repository leads to inadequate project documentation.

- Project members are usually more concerned with accomplishment of current project rather than capturing and archiving information that can be useful at a later time.
- Most of the project related information is not stored at all, like the project processes, contexts, rationales, or artifacts. Even if they are stored, they may not be structured, organized and indexed in a way that enables project members to easily access, search, and retrieve the information.

Collaborative Project Management as a Solution

We assume that various challenges faced in traditional PM can be addressed by using collaborative PM tools and processes. A collaborative PM tool deals with explicit representation of project information and timely sharing of the adequate information.

Let's have a look at how a collaborative PM environment can overcome the limitations that plague traditional PM.

Figure: Collaborative Project Management as a Solution

Considering PM as a Project Analysis Mechanism

When team members consider PM as a project reporting tool, they care about the outputs of the PM rather than the analysis process which gives those outputs.

- When people consider PM as a project reporting tool, extra project-related information that is usually not formally captured, will effectively be lost when memory fades.

- On the other hand, when employees treat PM as a project analysis tool instead of considering it as merely a reporting tool, the product will be the task information, decision rationale, and other related artifacts.

Effective and Efficient Communication

Explicit representation of project information is important for effective and efficient communication, especially in distributed situations.

- Effective communication also describes clear specification and unanimous agreement of significant project information such as key concepts, ideas, project process, team member duties, and responsibilities.

- All these are documented and saved for future reference by the team members.

- In addition to support for explicit representation of project information, a collaborative PM tool needs to support, manage and handle automatic notification of task status changes, and allow members to discuss and give feedback on one another's work.

Explicit representation, however, is an important step towards effective communication.

Managing Project Process as well as Inputs and Outputs

Managing the project process is the most crucial part of PM. One way to get an idea about the process is though a project lifecycle. The project lifecycle is broadly categorized into four major steps:

1. Understanding the project (problem definition and specification): planning the project.

2. Executing.

3. Tracking and controlling the project.

4. Closing the project.

Here the team members manage the inputs and outputs, but not the process, they overemphasize step 1, 2, and 4 at the cost of step 3.

The nature of project processes is dynamic and changes significantly from the original project plans and expectations as the project improves further. An ongoing process

always leads to some changes in project inputs and outputs and these changes, in turn, lead to further changes in the project process.

A collaborative PM tool allows team members to update, and review one another's work progress, collect project measures like resources spent on the task, and access the current work of others within a time bound.

Proactive Project Management

Proactive project management refers to future-oriented planning, risk management, and change management in the current ongoing project. Proactive management requires project team members to conduct precise, specified, clear, and detailed planning at the beginning of the project cycle, identifying potential risks, and making plans to mitigate those risks.

A project manager, who conducts proactive management, examines task interdependencies and makes their decisions based on precise "hard" data rather than wishful thinking.

- Proactive management is followed by learning.

- Proactive management of the PM process requires an Enterprise's project memory, from which members can learn during an ongoing project and refer back for future projects.

One way to implement an effective business organizational project memory is with the help of an electronic project repository.

Employing an Electronic Project Repository

With the growing advancement of information technology, files in digital format are easier to store, access, retrieve, edit, and route. The paper-based repository is replaced with an electronic project repository. The goal of an electronic project repository is to control, handle, and share project information efficiently and effectively.

- Effective information management improves the overall project performance within budget, reducing data entry and reentry costs, eliminating duplication, information loss, reducing product development time, fostering progress in process quality, standardizing work processes, improving management's ability to efficiently retrieve accurate information, and increasing management control.

- An electronic project repository can be connected via middleware with other information systems in the organization and provide a smooth information flow.

11. PROJECT MANAGEMENT ARCHITECTURE

The Project Management Architecture serves as an overview of collaborative PM:

- Inputs and outputs of the system.
- Factors that need to be considered by the system.
- Services provided by the system.
- How services coordinate and integrate with one another.

Let's have a look at two previous architectures that influence thinking, before moving onto Collaborative Project Management Architecture (CPMA).

Dixon's Integrated Model for PM

The following illustration depicts Dixon's collaborative management model:

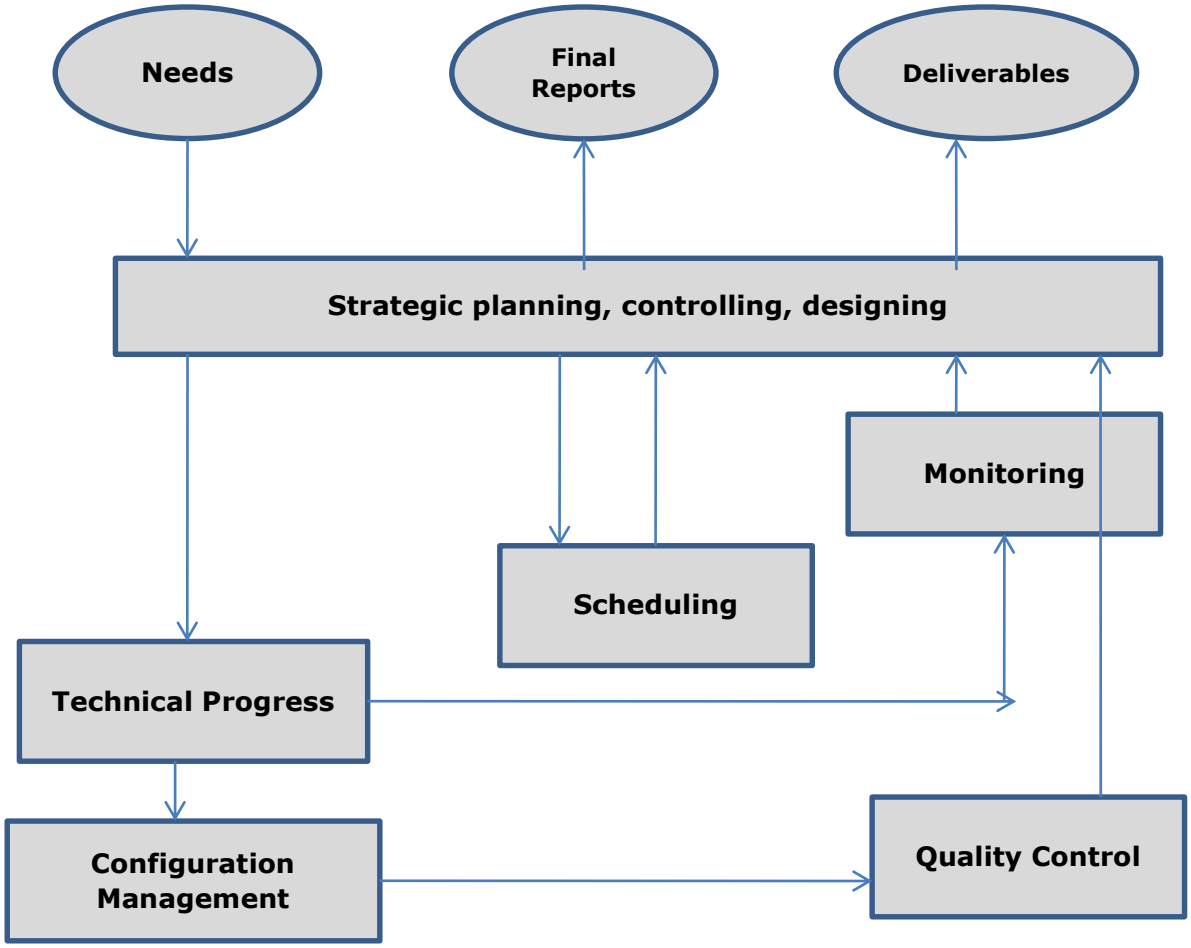

Figure: Dixon's Collaborative Project Model

The system broadly supports three major management areas:

- **Project Management** involves planning, estimating, scheduling, controlling, and evaluating the activities within the resource constraints to meet product performance criteria.

- **Resource management** involves precise resource identification and allocation.

- **Cost management** involves the analysis and measuring of information regarding planned and actual consumption of resources within the project and is concerned with project monitoring evaluating and control.

The system inputs are the needs to be taken care of.

- The Detailed Planning and Scheduling module handles and controls both project and resource management.

- The Technical Development and Configuration Management modules execute PM functions.

- Quality Control and Monitoring module facilitates monitoring and control services.

- System outputs involve reports and deliverables.

Dixon's model does not include project repository, and has no collaborative aspects. The management process is sequential in nature and the influence of one module on the next is one-way. This model is applicable only to well-defined and repeat environment.

Mauer's Project Coordination Architecture

System inputs include budget, resources, and objectives. System outputs include products, solutions, processes, and metrics. Metrics are used to analyze and examine project performance.

The Project Coordination Management module manages the softer side of the PM, which deals with personal interactions. The four major components in the project coordination system are:

- **The project repository**: It functions as a project memory. All information about the project is stored here.

- **The project planning component**: It allows team members to measure the levels of dependencies between information items and plan the project in terms of time and resources.

- **The project execution component:** It supports and encourages workflow management with the help of project plan. It allows re-planning and re-scheduling.

- **The project control component**: It supports monitoring of the project, allows team members to assess the present state, and collect the metrics.

This model does allude to collaboration and it emphasizes only on the coordination level, and does not clearly specify the inputs and outputs of the system. Specifications of input and output encourage the team members consider additional inputs to a PM system, and outputs produced by the system.

Maurer's model is highly comprehensive, that includes both system functions and the supporting management context in which the functions work. It describes the system functions and services as modules, but does not specify how these modules are interrelated.

The following illustration depicts Mauer's Collaborative Management Model:

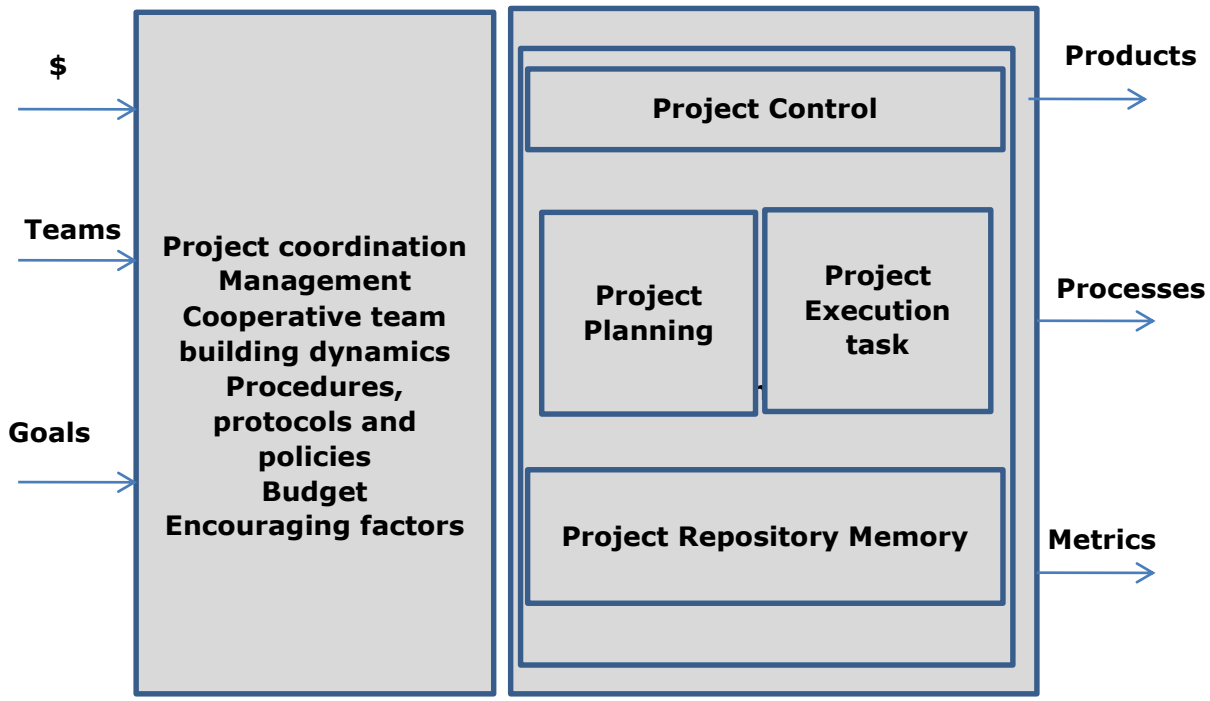

Figure: Mauer's Collaborative Management Model

Collaborative Project Management Architecture

Collaborative PM Architecture includes four core components:

1. Project Presence.
2. Collaborative Support Levels.
3. Project Knowledge Management.
4. Project Cycle.

The following illustration depicts Collaborative Project Management:

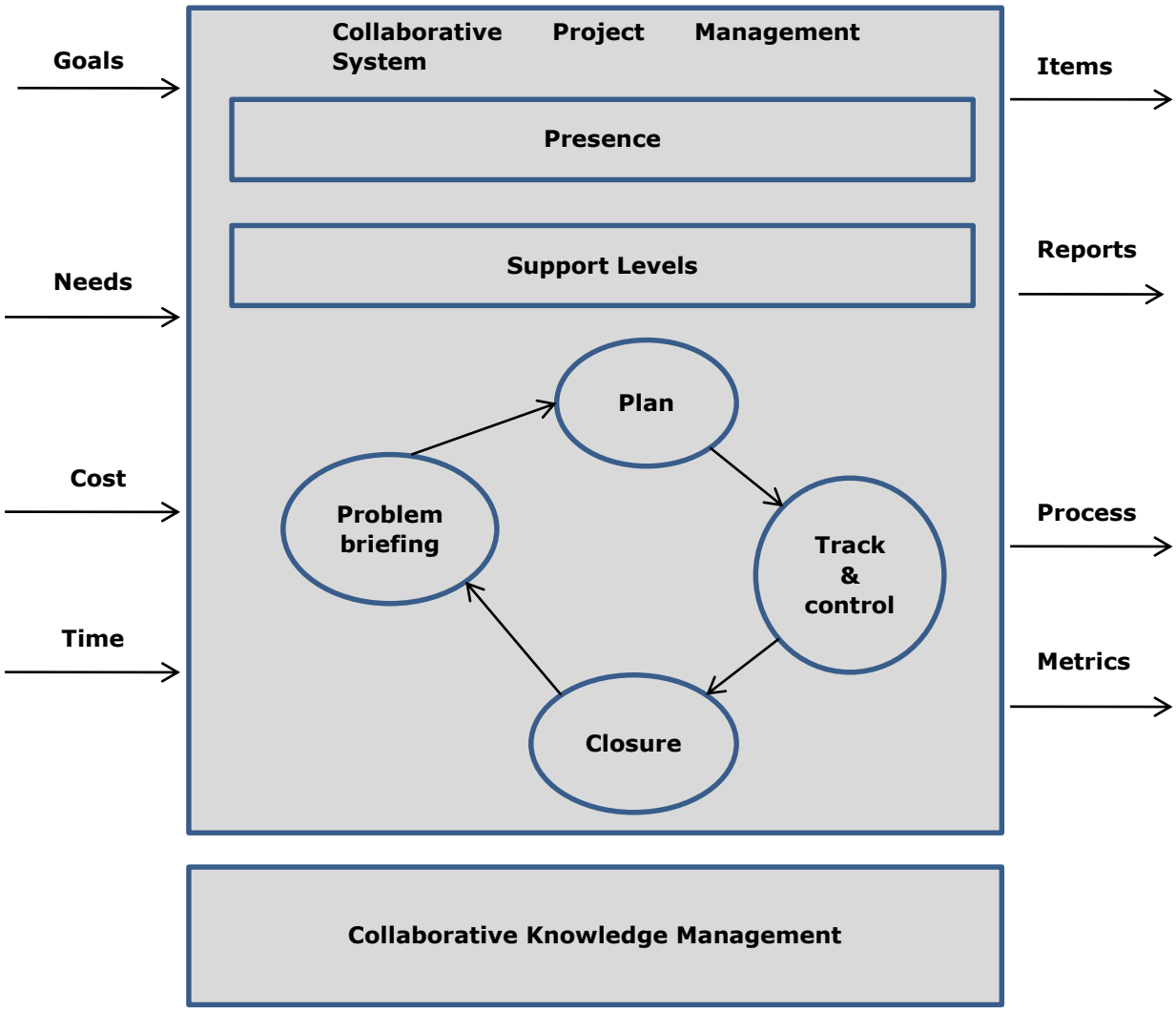

Figure: Collaborative Project Management

Project Presence

Presence can be described as the sense of being within an environment, and it refers to presence in real world. The following three components support distributed project members to build a better shared understanding of the project context.

1. **Project dictionary:** Here, key terms, concepts, process, and methodology are defined briefly and clarified precisely.

2. **Business Rules and Policies**: Team members explicitly specify project-related rules and regulations for all sites. These rules and policies allow team members to follow and maintain certain standards for project activities and document these activities for later retrieval.

3. **Project Context Information:** Team members should be familiar with project context in order to be productive in the long run. Project background, boundary, and objectives are required to be documented properly and shared with all project members.

Collaborative Support Levels

As people collaborate, there are three modes in which people can work in a collaborative manner:

1. Collected work
2. Coordinated work
3. Concerted work

Collected Work

At this level, each member of the team makes an individual effort.

- Coordination among members is not required for each member to be productive.
- Team productivity is basically the aggregate of individual efforts.
- Mode of work here is analogous to a team of sprinters, each of whom makes the best individual effort possible.
- Process structure and task structure is low or nonexistent. The need for interactive communication cues is also quite low. Typical computer applications to support collected work are word processing, spreadsheets, and graphics applications.

Coordinated Collaborative Level

At this level, the success of the team depends on their ability to coordinate their efforts and cooperate with each other.

- This level of collaboration involves handling interdependencies in between activities.
- Coordinated collaborative processes tend to be ordered, structured, and characterized by hand-offs and progressive integration.
- Typical computer applications to support coordinated work involves e-mail, team calendaring, workflow automation and many more.
- This level differs from the collective level, as it is more structured in terms of process, specific milestones and handoffs.

Concerted Collaborative Level

At this level, all the team members contribute in concert to the group effort, and performance of any one individual influences the ability of all other members to perform.

- Task and process structure are far higher for concerted work than for coordinated work, because any behavior by one team member simultaneously affects the productivity of others, and the need for interactive communication becomes continuous.

- PM at the concerted level requires tight coordination and cooperation among project members.

- PM tool supports all functions mentioned at the collected and coordinated level.

- At this level, an employee can search, retrieve, update, and upload documents according to the predefined user role.

Project Cycle

Project Cycle highlights the contents that require collaborative support. It has four major steps. We identify some general activities that need to be accomplished at each step — different project may have variations for these steps.

Step 1: Having a clear understanding about the project.

- Sense-making and decision-making tasks like identifying the project scope, objectives, key sponsors, and the gap between the current situation and ideal situation (the gap between "As Is" and "To Be").

- Estimating resource needs for the project (like budget, time, and personnel).

- Analyzing and evaluating the solution alternatives and conducting risk analysis are some typical functions of this stage.

Step 2: Making a plan for achieving the project goals.

- Typical functions include are analysis and decision-making activities like distributing the project into manageable tasks and subtasks.

- Analyzing the interdependency of tasks among each other.

- Forming the project team, assigning and allocating resources and tasks to team members.

- Making project schedule, defining progress measurements, planning risk management and change management, forming the communication plan, and setting up Project Notebook which includes all project related documents.

Step 3: Executing the project plan

- Collecting project progress information.

- Executing risk and change management, updating and maintaining the Project Notebook.

- This stage is the most dynamic and crucial part in PM.A collaborative PM tool highly enhances the project tracking ability.

Step 4: Identifying the sign-off criteria

- Reflecting upon the project process including what went right, and what went wrong and comparing the initial project planning with the current project process.

- Identifying possible improvement if the identical project will be conducted in the future.

Collaborative Knowledge Management

Knowledge Management focuses on managing data, information, and knowledge at the corporate level. Knowledge can be divided into two categories:

1. **Tacit knowledge**: to know how and what.
2. **Explicit knowledge**: to know about facts, figures and theories.

Knowledge Management is the process of absorbing, creating, sharing, and using knowledge. The difference between Project Management and Knowledge Management is highlighted in the following table:

Project Management (PM)	Knowledge Management (KM)
PM requires finite effort for a given time period	KM is an ongoing process where knowledge is maintained as long as it is essential.
PM is objective oriented.	KM is not necessarily object oriented; it is a kind of itself.

Knowledge is created and modified as required by the ongoing project activities, and the context of knowledge creation and application are significant.

- Projects make KM essential across time and contexts.

- A KM tool helps in knowledge generation activities like knowledge Sharing and conversion exchange tacit knowledge, externalization through communication.

- KM specifies rules, regulations, policies, etc., and provides functions for collection of information, access, update, retrieval, enterprise, and archival.

- It facilitates functions for information integration from different sources. The actual data and information are stored in a document repository in different document formats.

Collaborative Knowledge Management allows transferring data from one source to another, for example, importing or archiving important email exchanges as text files. By collecting data and information from multiple projects, KM allows project managers to compare and contrast information across projects to derive patterns and thus create knowledge.

12. APPLICATIONS AND IMPLEMENTATIONS

Collaborative Approaches to Natural Resource Management

Collaborative natural resources management refers to multiparty natural resource management projects, programs, or decision-making processes through active participatory approach, and explores the range of evaluation approaches applied to such efforts.

Evaluation Approaches

We need different evaluation approaches and methods for examining collaborative efforts.

Why Evaluate?

Let's see why it is important to evaluate the collaborative efforts:

- **Collaborative members** need evaluations to improve their efforts and meet their personal goals.
- **Distributors and resource managers** look for guidelines that help in identifying which approaches are appropriate in different circumstances.
- **Policymakers** need updated evaluation that helps them in formulating appropriate rules and regulations.
- **Sponsors and interest groups** need to ensure which collaborative efforts to support and what stance to take on general policies promoting or inhibiting collaborative processes.

Who Evaluates?

Collaborative approaches are constantly being evaluated formally and informally, by collaborative team members. Yet, members wonder who is best placed to evaluate these efforts.

- Some believe in neutral, third-party evaluations in order to achieve reliable, unbiased results, while others mainly those directly involved with collaborative approaches emphasize the importance of active participatory evaluation.
- Many members in collaborative natural resource management emphasize that evaluators must be intimately familiar with a specified process, its history, and its context, and disparage evaluation from a distance.
- At the same time, some object this approach justifying that the interests of those directly involved in a collaborative venture reduces objectivity.

What is Evaluated?

While trying to implement a collaborative approach, the evaluators need to consider what to evaluate.

- Many observers conclude that whether or not a collaborative approach leads to improved environmental conditions is the ultimate measure of its success.
- Changes in local economic development might be another type of outcome to be assessed in achieving a goal through collaborative efforts.
- Some evaluators contend that evaluating only one narrowly defined outcome at a time makes analysis tighter, consistent, and more specific. Evaluation criteria occur at various different scales.
- Evaluations can also occur at different temporal scales.

Evaluation Criteria

An attempt for evaluation is based on the basis of comparing reality to a set of criteria.

- The simplest criterion put forth to assess collaborative efforts was given by Williams and Ellefson (1997), in which he defined a successful partnership as a team results in attracting and keeping members engaged in partnership activities.
- Collaboration can easily be turned into criteria for evaluating specific collaborative approaches. For example, collaboration saves money turns out as did it save money?

Figure: Evaluation Criteria

Objectives of an evaluation must be clearly mentioned so that appropriate evaluation criteria are selected and data collection is properly guided.

Collaborative Watershed Management

The emergence of collaborative watershed management marks a new paradigm in environmental policy.

- Collaborative management acts as a potential remedy to various pathologies of existing regulations, which led to costly conflict and left many environmental problems unresolved.

- Specifically, collaborative management is seen as an alternative to regulation for solving environmental issues related with non-point source pollution from urban and agricultural runoff, and also habitat loss.

- Cooperation among policy elites is essential but not sufficient condition for the success of collaborative management. Another important criterion for successful collaborative management is cooperation from "grassroots stakeholders".

- The success of collaborative management depends on changing the resource-use behaviors of grassroots stakeholders in sustainable ways.

Example: Suwannee River Partnership in Florida

Let's have a quick briefing about the grassroots using an attitude survey of farmers involved in the Suwannee River Partnership in Florida.

- The Suwannee River originates from the Okefenokee Swamp of Georgia and runs from north to south for 235 miles, through the panhandle of Florida and into the Gulf of Mexico.

- Currently the Suwannee is exceeding state water quality standards for the nitrate form of nitrogen, and is listed on Florida's 303(d) list of impaired waters.

- Pollution from farming is mainly blamed for elevated nitrates in the river.

Briefing Farmer Cooperation in the Suwannee Partnership

Cooperation is basically divided into two essential elements:

1. Perceptions of the effectiveness of the exercises recommended by the partnership.

2. Active farmer participation in the partnership. Effectiveness beliefs and participation are interconnected, and are essential for the success of collaborative management.

Here, three theoretical perspectives are marked to explain farmer cooperation:

1. Economics
2. Social capital
3. Social values

The Economic Perspective

The economic perspective on farmer cooperation is mainly based on rational choice models, which posit individuals always choose behaviors perceived to have the highest benefit-cost ratio.

- Economic viability is main concern of the agricultural community. Farmers tend to resist any type of government policy that they assume will increase their production rates, and are more likely to accept government policies that facilitate financial incentives.

- Another important economic consideration is the threat of future regulations, and the probability that voluntary conservation could facilitate regulatory relief.

The Social Capital Perspective

The social capital perspective marks active voluntary partnerships as a collective-action problem.

- The social capital perspective believes that cooperation has long-term economic advantages that come either from improving water quality or avoiding regulatory intervention.

- It can also be concluded that cooperation is in the long-term economic self-interest of farmers. These advantages can only be achieved if enough social capital is developed to support and encourage cooperation over time.

The Belief System Perspective

Here, the concerns are how fundamental social values affect perceptions about BMP effectiveness. Social values are combined into fairly cohesive belief-systems, where more fundamental policy-core beliefs constrain the formation of more immediate secondary beliefs about attitude objects in a policy subsystem.

Conclusions: Implications for Collaborative Management

The results of the analysis suggest the view from the grassroots highlights that collaborative management requires cooperation from grassroots stakeholders

- Evaluations of equity and efficiency are also dependent on these results.

- Overall, collaborative management needs feedback and reviews about the effectiveness and efficiency of policy implementation activities and practices for solving water problems, and mechanisms for adjusting policies in light of new information.

13. CONFLICT MANAGEMENT

Conflict is a relationship among two or more opposing parties, based on actual or perceived differences in needs, interests, and goals. Conflict is a part of our professional, personal and social life, and is often required for the dynamics of change.

Conflict management is challenging because of the following reasons:

- The origins of a conflict are often complex and diverse. Multiple conflicts may go on at the same time.

- Conflicts are dynamic (ever-changing) and interactive social processes that are difficult to handle.

What Causes Conflict?

There are five major sources of conflict regardless of whether the conflict is seen as interpersonal, intrapersonal, inter-organizational, communal, or social:

1. **Relationship conflicts** occur due to the presence of strong negative emotions, misperceptions, poor communication, misunderstandings, or repetition of negative behavior.

2. **Data conflicts** occur when people lack the information necessary to make wise and correct decisions as demanded by time, interpret information differently, are misinformed, or disagree over what data are relevant.

3. **Interest conflicts** are caused by competition over perceived or actual incompatible requirements.

4. **Structural conflicts** are caused due to oppressive patterns of human relationships like limited resources or authority, geographic constraints like distance or proximity, too little time, or too much time.

5. **Value conflicts** are caused because of perceived or actual incompatible belief systems. Differences in values cause serious disputes and cannot be solved through negotiations alone.

Collaborative Procedures for Managing Conflict

Determining an appropriate response is a very essential outcome of conflict analysis. Some key attributes for managing conflicts are discussed below:

- **Negotiation**: A group discussion and decision-making process among opposing parties. Its objective is to settle an agreement that ends the dispute.

- **Mediation**: the process where an acceptable third party known as the mediator with limited or no authoritative decision-making power assists the main parties in a conflict to resolve their dispute.

Figure: Conflict Management

- **Arbitration**: an informal process whereby the parties submit the issues at stake to a mutually agreeable third party, who makes the decision and both the parties cooperate for them.

- **Adjudication**: a process whereby an authority, a judge, or other official makes a decision based on the norms, policies, rules, regulations, and values of the society, and in conformity with legal statutes.

In collaborative conflict management, there is no single best way that is applicable in all situations. Deciding the most appropriate and legitimate means of addressing a

dispute depends on the situation. Multiple ways of resolving conflicts should be used in combination.

The Process Map of Collaborative Conflict Management

The process map of collaborative conflict management includes three stages:

1. Stage 1: Pre-deliberation Phase
2. Stage 2: Signing an Agreement
3. Stage 3: Post-deliberation Phase

Stage 1: Pre-deliberation phase

Step 1: Analyze the conflict

- A formal analysis starts by collecting detailed information about the conflict. Information about an issue is gathered through three sources: direct observation, secondary sources, and personal interviews.

- The analysis should be updated throughout the process as new information is introduced and as people and their relationships change.

Step 2: Develop a conflict management strategy

- Determine who should participate: categories of participants, and the individuals who can represent interests in the best way.

- Define the roles that each individual associated with the negotiation is expected to play: Including participants, the initiator, convener, technical resource expert, observers, and the logistics support person.

Stage 2: Sign an agreement

Step 3: Inform stakeholders about the strategy

- Educate the parties: Parties must understand the context and root cause of the problem, issues, their own and other parties' interests.

- Define meeting ground rules: Ground rules are the rules of conduct that all parties need to abide during negotiations or other conflict management activities.

Step 4: Establish ground rules for the negotiation

- The parties should adopt the ground rules and protocols drafted during the planning phase.

- Rules can be added or modified as per the requirement, but the entire group must approve any change before it is adopted.

Step 5: Explore the issues and interests

- Parties educate each other: They describe their perceptions on the issue, identify and discuss the problems, explain their concerns, and list their assumptions.

- Identify and share interests: the reasons, requirements, concerns, and motivations underlying participants' positions rather than assert positions.

Step 6: Specify the information needs

- Briefing more information about issues and interests.

- Identifying information that is available, and additional necessary information that is missing.

- Mutually agreeing on methods for generating answers to technical questions, or an activity or process to execute when there is no consensus over technical issues.

Step 7: Prioritize the issues

- Put the issues into a sequence: such as labeling it as high-priority, medium-priority, low-priority, and undecided.

- Beginning with a procedural or psychological agreement is a good strategy

Step 8: Generate options

- Negotiators are supported to create multiple options for each issue, because the search for a good solution needs a broad discussion and thinking outside the box.

- Multiple options are also advisable because it is quite common for party A to suggest an option that party B rejects.

- The goal at this stage is to produce the broadest possible selection of alternatives possible.

Step 9: Develop criteria for evaluating options

- In this step, the parties need to assess how well their interests will be satisfied by each of the alternatives that have been generated collaboratively.

- Using objective criteria facilitates the process of deciding which alternatives will be most satisfactory to all groups.

- It also ensures that there are fair and independent standards for decision-making.

Step 10: Evaluate the options

- Encourage the parties to look closely at their BATNAs (i.e. Best Alternatives To a Negotiated Agreement).

- Each party is required to determine whether it is better off with or without the proposed agreement.

Step 11: Reach an agreement

There are several ways of coming up with an agreement:

- **Agreements in principle:** Start with general principles and rules that all the parties can agree to. Then work on clarifying how these principles can be put in place to lead to an agreement peacefully.

- **First agreement in principle:** The companies and the communities agree in principle that the companies should employ more local people.

- **Second agreement in principle:** The companies and the communities agree in principle that those hired should have certain qualifications or skills demanded.

- **Third agreement in principle:** The companies and the community agree in principle to develop a list of specific qualifications and skills that those employed must have.

Step 12: Develop a written agreement

- Present the draft to constituent: The parties to the dispute need time to confirm the options they agree to and obtain support from their constituents.

- One of the greatest pitfalls in negotiations occurs when the negotiator for party exceeds his/her authority in reaching an agreement.

Stage 3: Post-deliberation phase

Step 13: Approve the agreement

- Confirm the agreement with a larger constituency: Once an agreement has been posted, the negotiating parties may wish to confirm its acceptability to their broader constituencies.

- Make the agreement public: A final point of mutual discussion is the extent to which stakeholders wish to make their agreement public.

Step 14: Implement the agreement

- Monitor results: A monitoring system facilitates a central point to which all parties can direct their concerns and suggestions.

- Decide which actions constitute violations of the agreement and how to handle them: The monitoring committee must take responsibility and account for naming violations and exploring the reasons for any infraction with the offending party.

Collaborative conflict management is a learning process for all participants. It provides new insights on how to influence decisions, manage differences, and develop a better understanding and greater respect for each others' interests in the future. For this reason, collaborative conflict management processes are likely to result in increased competencies for handling conflict situations and a strengthened sense of responsibility in conflict-charged situations.

14. CASE STUDY

A New Agenda for Picorda

Background

Picorda, a country renowned for the exquisite natural beauty of its upland forests, is currently facing an environmental crisis. To tackle this problem, the following measures have been taken:

- A new community-based forest management program (CBFMP) was introduced within the Department of Environment and Natural Resources (DENR), the State agency is accountable for managing and protecting the country's natural resources.

- The CBFMP is now integrated into Picorda's progress process, along with its multiple land-use management objectives of income generation, forest protection, and food production.

- Various financial supports from international funding agencies enabled DENR to execute the program completely, but created a pattern of faulty assessment of the existing environmental crisis.

Current Situation

A Picorda working group has been formed, with volunteers from the local community, the CBFMP, DENR, and the international funding agency. Group meetings are being conducted to determine the agenda.

The meeting participants have compiled lists of critical problems for discussion, including forming rational environmental measurements; identifying corrective requirements within agencies, increasing support for communities to help them comply with program objectives and determining territorial boundaries.

You have been selected to represent the four major communities situated within the CBFMP jurisdiction. People have high expectations from the program, but it has been difficult to accommodate all the new duties that have arisen, there are so many meetings and so many conflict issues to address.

The major problem is that the government last month cut 50% of timber in your region, without warning and without involving any local people. Workers from outside the community were brought in to do the harvesting, cultivating, and all the logs were taken away. Everyone is furious, and people have demanded that you should address the following issues:

- Who is responsible for the debacle of the recent timber harvests in the region?
- Where did the timber and profits go?
- Why were workers brought in from outside?

Discuss how you would apply the methods of collaborative management to resolve these issues.