# Prevention and Intervention Strategies for Distressed Projects: The Case of Designated Projects in Ethiopia

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**Abstract:** In all possible rational thinking, project success is every company's aspiration. Yet projects are hardly trouble-free, no matter how feasible their plans are. Since projects are planned in a forecasted future working environment, unforeseen circumstances are sure to materialize. These unforeseen, but happening, circumstances cause variations between the planned and actual performances of projects, which eventually lead to distressed project conditions. Nevertheless, all projects do not get distressed for the same cause. Causes of project distress are enormous. They may be internal or external, within the reach of the project team or beyond, controllable or uncontrollable. But discovering causes of project distress is one thing; and preventing the distress is another. Project outcomes are consequences of decisions, not coincidences of circumstances. However, despite all efforts, if a project is judged to be distressed, a project intervention attempt that aimed to find out the very causes for the distressed condition should immediately be initiated. Subsequently, the prevailing state of the project has to be carefully investigated to enable the project team to plan efficient and effective way out strategies. In brief, no matter whatsoever the cause is, the project team should always do everything possible to reinstate the project with the minimum possible cost and effort. Yet the cheapest of all is prevention. Intervention, which occurs once the project has been deemed to be in distress, is very expensive. In general, there are two types of strategies for dealing with distressed projects. Every project that becomes distressed was once not in distress. Hence, there are possibilities of minimizing the likelihood of projects becoming distressed if the appropriate prevention strategies are put in place. On the other hand, in the face of best efforts, prevention strategies might not work due to prevailing conditions that are beyond control, and projects may still become distressed. If this happens, intervention strategies can be applied to reinstate the project. Yet intervention strategies should be carefully planned as all distressed projects do not necessarily call for the same intervention strategy. Intervention strategies need to be designed based on critical analysis of the project's current state of affairs. The right remedy for the right problem!!

**Keywords:** Distressed Projects, Intervention Strategies, Prevention Strategies, Project Management Office, Reinstating

## 1. Background of the Study

Basically a distressed project is a failed project. Yet what is failure? Surprisingly enough there is no a collective definition for failure. It is complicated by the variety of definitions it has among proponents of different stakeholders. Since stakeholders usually have conflicting interests, one stakeholder's failure is another stakeholder's success [3]. Thus, the same project could be perceived as failed by one stakeholder and succeeded by another. A project completed on schedule and within project budget may be perceived as a successful project by the project team, but it is possible that other stakeholders (may be the clients) are unhappy with this same project, or that the business itself fails for reasons that are beyond the control of the project team. This makes the definition of success and failure intricate, and so is a distressed project.

However, the most conventional definition of failure is the absence of success [5]. Success, then again, is multifaceted. Generally, success is defined as "meeting client's expectations" regardless of whether or not the client is internal or external [9]. By the same token, some authorities in the area define project success as getting a project done within predefined constraints of scope, schedule, budget and quality [2]. According to this definition, success is just a point; the intersection point of all the predefined constraints

(scope, schedule, budget and quality) on the project performance grid. Nevertheless, most projects hit the target point hardly ever. Thus, projects are often completed at extended time, higher budget, and/or compromised project quality. Therefore, if any one or more of the predefined project constraints are missed, then the project is said to be failed or distressed.   Altogether, the most governing definition of failure is unmet expectation, even if the original expectation is unreasonable.    Hence with unattainable or impracticable expectations, failure is virtually assured since it is already defined as unmet expectations. This is called a planning failure; and is the difference between what was planned and what was, in fact, achieved.

Project performance does not always go as planned, no matter how feasible the plan may be. On every occasion there are seen or unseen, expected or unexpected, foreseen or unforeseen circumstances projects come upon. Yet all projects do not fail or get distressed for the same cause. Causes of project distress are enormous; and they vary with the type of project, its level of complication, its industry, the monetary value put in it, and the stakeholders' definition of project distress. More often than not, the causes of project distress are not difficult to identify. Usually they have to do with disarray of direction, escalated cost of materials, dishonoured cash flow, poor leadership skills, and lack of integration. Nevertheless, lack of integration between project functional units is the most common cause of project distress. Project team members from all functional units must be dedicated to all activities required for project success, not just their own functional responsibilities. On the other hand, impediments and complications resulting from lack of integration can best be solved by full-time membership and participation of project office personnel that recognises the problem pretty well. The appointment of a project manager with demonstrated interpersonal skills boosts the rectification effort even more. In contrast, if executives fail to recognize the problem and hesitate to take corrective measures, with no doubt, they will run even higher risk of project distress/failure.

Since the present is pregnant with the future, tomorrow's outcomes (successes or failures) are the results of today's decisions. Indeed, the qualities of the decisions we make today determine our future destiny. Thus, company executives should think and rethink each and every of their project related choices and resolutions before they make their final decisions. Project outcomes are consequences of decisions, not coincidences of circumstances. Therefore, the selection of the right project for future investment is a strategic decision that determines the fate of companies in the days to come. In contrast, the selection of the wrong project may well precipitate project failure leading to company liquidation and associated problems.

Once the right project is selected and its work breakdown structure, deliverables, and important milestones and dates are clearly identified, then communicating the project plan to all stakeholders becomes a phenomenal footstep for future project execution and evaluation activities. This also enables stakeholders to own the project and involve themselves in it whenever needed. Because projects often fail when their communication scheme fail, project team leaders need to make sure that all project stakeholders have the right information and are aware of their duties and responsibilities.

Despite the project team's best efforts, some projects are destined for problems. Sometimes it's the team's fault, and sometimes it's just the roll of the dice. What is important is to protect the project against the unexpected and to have early warning signs in place to minimize the impact of the coming problems. Having a solid risk management plan is also important. These are the *prevention strategies*. But the inevitable still happens, and sometimes you are left with a project that is in trouble, one you need to save as best you can. These are the *intervention strategies*. [12]

## 2. Statement of the Problem

Whenever the performance of a project falls outside nominal values, it is judged to be a project in distress. How it got to that state is a question that needs answering. Most important is knowing how to establish an early warning system and prevent a project from becoming distressed. But understand that even the best efforts will not be 100-percent effective, and a project can still become distressed. The question then becomes: How can it be returned to a state of normalcy - if at all? [12]

Causes of project distress may be internal or external, within the reach of the project team or beyond, controllable or uncontrollable. But no matter whatsoever the cause is, the project team should always do everything possible to reinstate the project with the minimum possible cost and effort. Accordingly, once a project is judged to be distressed, a project intervention attempt that aimed to find out the very causes for the distressed condition should immediately be initiated. Subsequently, the prevailing state of the project has to be carefully investigated to enable the project team to plan efficient and effective way out strategies. Yet the cheapest of all is prevention [6]. Intervention, which occurs once the project has been deemed to be in distress, is very expensive!!

Many studies have been done over the years that attempted to discover the foremost causes or reasons for project distress; and over and over again some common reasons were revealed. But discovering causes of project distress is one thing. Preventing the distress is another. [15] In this regard, if the time gap between identifying causes of project distress and taking relevant preventive measures is too long, the risk of ending up with a distressed project is very high [14]. Besides, higher risks of losing sponsors' motivation, loss of critical project resources, and resignation of indispensable project team members who may not want to be part of a distressed project team are only few of the possible risks of the reluctance (the time gap) to mention [8]. This, in turn, results in a distressed condition and eventually a project failure. In brief, if the appropriate corrective action that fits to the discovered

cause of the distress is not applied promptly, it is likely that the risk of the project becoming distressed goes up.

In general, there are two types of strategies for dealing with distressed projects. Every project that becomes distressed was once not in distress, and there are prevention strategies to minimize the likelihood of projects becoming distressed. Despite your diligence, the prevention strategies might not work due to prevailing conditions beyond your control, and your project will still become distressed. If this happens, there are intervention strategies that you can use. [12]

Prevention strategies are proactive approaches that are developed to diminish the possibility of projects becoming distressed. Of course, it is not possible to defend all projects from becoming distressed, but it is possible to significantly reduce their numbers [1]. At the same time, before employing any preventive strategy, a rational cost-benefit analysis should always be done to justify the need for the preventive action. Justifying the benefits of prevention measures is of high importance because at times preventive actions are even more expensive than the project failure. Likewise, overinvestment in risk management could lead to financial complications if the prevailing risk events of the project do not call for extensive measures as projected [7]. Similarly, underinvestment in risk management for a project with a range of complex risk events could lead to heavy losses and damages, eventually leading the project to failure. Generally, investment in risk management has to be as large as the severity of the prevailing risk events.

Even though there is no guarantee that prevention strategies (such as risk management) will actually prevent a project from becoming distressed, the prevention attempt should always be the first and the spontaneous response to all signs of project distress [10]. This is because it is cheaper to prevent errors than to rectify them once happened. On the other hand, in the face of all protection efforts against a project becoming distressed, a project may still become distressed. Once the project is deemed to be in distress, prevention becomes meaningless and intervention begins to take the platform [4]. Yet intervention strategies should be carefully planned as all distressed projects do not necessarily call for the same intervention strategy. Intervention strategies need to be designed based on critical analysis of the project's current state of affairs. The right remedy for the right problem!! Accordingly, all upcoming works on the project could be postponed until applicable intervention strategies are formulated and implemented in a revised project plan. Alternatively, owing to external factors such as strict project schedule or other requirements from stakeholders, the project work may continue while a way out is defined and implemented. To end with, there are two types of strategies to deal with distressed projects, namely prevention and intervention strategies.

## 3. Basic Research Questions

This study has addressed plentiful questions in one way or the other. But the following are the basic questions that have been explicitly answered in this study.

1) What is a distressed project?
2) How is a potentially distressed project recognized?
3) Why do projects become distressed?
4) What prevention strategies could be taken to avoid projects becoming distressed?
5) What intervention strategies could be taken to reinstate distressed projects? and
6) What are the roles and responsibilities of the Project Management Office (PMO) with respect to distressed projects?

## 4. Objectives of the Study

### 4.1. General Objective

Framing operational prevention and intervention strategies for distressed projects is the primary objective of this study. Where appropriate, the study also strived to forward possible suggestions on how similar distressed projects can be reinstated in the future by a rightful selection of prevention and intervention tools and techniques.

### 4.2. Specific Objectives

The following are the specific objectives of this research that answer each of the basic research questions stated above.

1) To pinpoint the most common characteristics of a distressed project;
2) To identify indicators of projects becoming distressed;
3) To discover possible causes or reasons of project distress;
4) To study operational prevention strategies for distressed projects;
5) To ascertain tested intervention strategies that can reinstate distressed projects; and
6) To recognize the roles and responsibilities of the Project Management Office (PMO) with respect to distressed projects.

## 5. Significance of the Study

The fundamental economic problem pronounces that human's material wants are unlimited but economic resources are scarce or limited in supply. This mismatch between wants (demands) and supplies triggers the never-ending question of how to use the available limited resources in a society to meet the existing unlimited needs of the society. Yet in point of fact all wants cannot be met, but only chosen few [11]. Therefore, individuals, organizations, and even nations have to make wise decisions in allocating these scarce economic resources to their chosen few wants. In brief, since we live in a world of limited resources, we cannot carry out all of our dream projects, but only a few of them [16]. With this grim reality of nature in mind, company executives should give the highest possible attention to their choice of projects as projects require the commitment of these scarce resources.

In addition, because projects tie up company resources, the selection of one project may preclude company executives from pursuing another project, as an opportunity cost to their former choice. Therefore, the choice of projects is a strategic decision that determines not only the success of companies but even their very survival [13]. Therefore, company executives have to make down-to-earth cost-benefit analysis to rank potential projects and choose the best of them for execution leaving all others behind. This is a bold decision to invest scarce resources on selected projects as these resources will not be available for any other purpose, no matter what.

Therefore, the success/failure of these projects is perhaps the success/failure of the company whose scarce resources are invested in the designated projects. Thus, in all possible scenarios, project success is every company's aspiration. In view of that, no one ever initiates a project for distress or failure. Of course, distress/failure is an undesired result. Therefore, the overriding significance of this study is its contribution to minimize the possibility of projects becoming distressed. In other words, decline in the number of distressed projects indicates effective use of scarce company resources in particular and organizational success in general. Likewise, success is what every company strives for. In the light of this, this research is of great significance for both researchers and practitioners in the area as it:

1) Pinpointed some common indicators of projects becoming distressed;

This established an early warning system which helps to prevent a project from becoming distressed.

2) Identified possible causes or reasons of project distress;

This helps to work on the cause and evade it from its source.

3) Recommended operational and tested prevention strategies for distressed projects;

This is significant as it enables to prevent project distress before it is materialized.
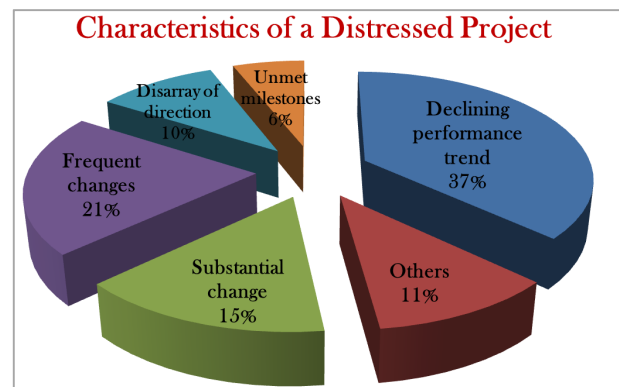
4) Endorsed operational and confirmed intervention strategies for distressed projects;

This enables to reinstate distressed projects back to track.

# 6. Major Research Findings

Often organizations have certain areas of focus they are known for; and routine lines of work established in view of that. Yet sometimes they are asked to undertake tasks that do not fit neatly into any of their routine business lines. When organizations want to undertake such tasks that do not clearly fall within the definition of their routine work, they initiate projects that establish an innovative system for the achievement of their lately intended organizational goals. Today, as a result of this, many organizations largely depend on projects to achieve their strategic objectives. However, since projects are indeed potentially vulnerable to distressed conditions, the success of these projects significantly depends on the prevention and intervention strategies employed for

distressed projects by organizations. Therefore, the study of prevention and intervention strategies for distressed projects is at the very heart of organizational undertakings for successful conclusion of their projects. Accordingly, dealing with distressed projects is a matter of organizational success as all projects are potentially subjected to distressed conditions. Moreover, because finding the genuine problem is half a solution, discovering distressed conditions as early as possible is a decisive step towards fixing the problem before it results in project failure. With this in mind, this paper has examined some common characteristics that are early warning signs that a project is heading for a distressed condition.
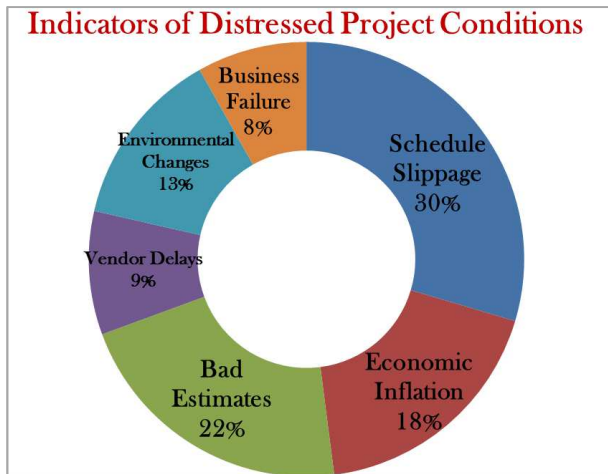


(Source: Own Survey)

**Figure 1.** *The most common characteristics of distressed projects.*

As shown on figure 1 above the three most common characteristics of a distressed project are a declining performance trend that, if continued, will lead to project failure (37%); frequent changes in project plan or scope (21%); and substantial cuts in project resources or time (15%). According to the findings of this study, if a project exhibits these characteristics, then it is very likely that the project is at the very verge of becoming distressed. Hence, these are alerting signals that call for corrective actions to save the project from becoming distressed and eventually fail. However, most of the time late corrective actions are less likely to inhibit the inevitable. Hence, the corrective action should be put in place as promptly as possible to decrease the likelihood of a project becoming distressed.

On the other hand, for failure not to come as a complete surprise, it was found necessary to learn if there are any indicators of projects becoming distressed. Then, striving for the best possible result, the researcher of this study designed close ended questionnaires to be filled by the research respondents, conducted structured interview with selected participants, and also arranged focus group discussions with designated authorities on this subject. Subsequently, typical indicators of projects becoming distressed were identified using the aforementioned multiple data sources.

Clearly, these indicators enable project stakeholders to recognize a potentially distressed project before it becomes visible. This, in turn, helps them to establish an early warning system and prevent the project from becoming distressed.

Therefore, good knowledge of indicators makes visible differences in the project team's effort to prevent the project from becoming distressed. In view of that, the appropriate attention should always be given to these indicators and the pertinent direction should continually be designed accordingly.
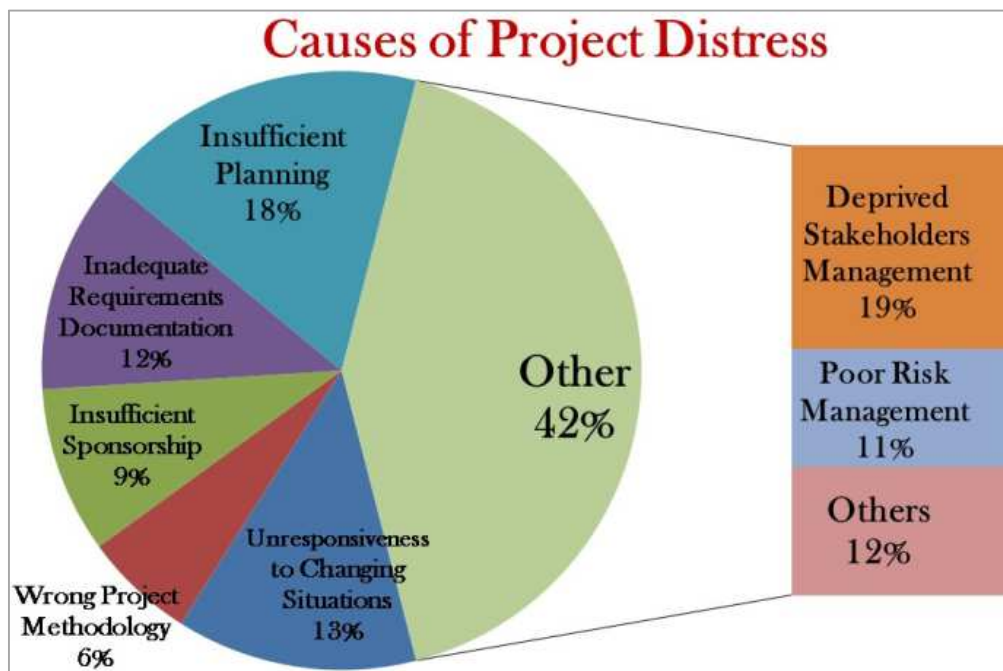


(Source: Own Survey)

*Figure 2. Indicators of projects becoming distressed.*

The indicators portrayed on the figure above corroborate the findings of this research from the quantitative data obtained from the closed questions included in the questionnaire. Here it is worth to mention that these indicators play a key role in helping project stakeholders recognize distressed projects before the commitment of further scarce company resources on a project heading to failure. This, as a result, ensures wise and economic use of resources.

Then again recognizing that a project is distressed is one thing, but preventing the condition is another. It is also clear that the mission of project stakeholders is not discovering distressed conditions or reporting project failure, but ensuring that the project is completed successfully as planned. Moreover, because projects require the commitment of scarce organizational resources that cannot be available for any other purpose once used up for a certain project, their wise utilization is indispensible. Accordingly, the effective and efficient use of these limited company resources for the successful execution of projects is and also should be every organization's high priority. For that reason, it is unquestionable that organizations should put their full energy on preventing distressed conditions, as opposed to overinvestment of their scarce resources to reinstate projects once distressed. In a nutshell, preventing projects from becoming distressed is the most feasible project management methodology.

Therefore, all pertinent project stakeholders should be reasonably certain that they have identified the necessary and sufficient set of prevention strategies to avoid the likelihood of projects becoming distressed. Yet pragmatic prevention strategies could be set only if the genuine causes of the distressed condition are properly identified. Prevention at the source!!



(Source: Own Survey)

*Figure 3. Possible causes or reasons for project distress.*

Prevention strategies are effective only if the root causes of the problem are discovered. With this in mind, this research has investigated possible causes of project distress. One interesting finding of the study is that the causes depicted on the figure above were mentioned regardless of the type of the project studied. Thus, strikingly similar causes or reasons of

project distressed were revealed regardless of whether the project considered is a construction project, a software development project, a humanitarian aid campaign, or a research & development project.

Thus, this research made it clear that poor management of stakeholders, insufficient planning, and unresponsiveness to changing situations are the three foremost causes of project distress. Here it is important to point out that although all stakeholders should be tied into the reporting system in some way, not everyone needs to receive the same information. Therefore, project performance reports should be tailored to the needs and interests of the stakeholders concerned. For example, clients may wish to have reports on cost and schedule while functional managers may wish to see reports on technical accomplishments. Likewise, reports delivered to those engaged in managing the project should be timed to allow control to be exercised before the project becomes distressed.
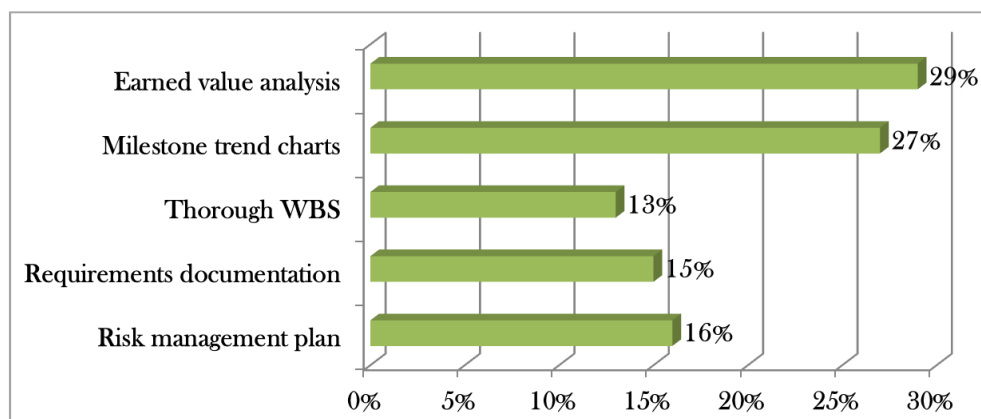
On the other hand, quite large numbers of the research participants were frank enough to admit that they were once members of a project team that incurred tremendous expense and large losses for the reason that their planning process was inadequate for the project tasks undertaken. So, from their experience, they stated inadequate planning as one of the very causes of project distress. Likewise, management's negligence to respond to new and unforeseen situations was also mentioned as another possible cause of project distress.

Everything considered, the ultimate objective of identifying possible causes of project distress is to simplify the prevention attempt. Once factors that lead to project distress are properly identified, then operational and on target prevention strategies that can effectively dismantle the causes of the distressed conditions could be put in place. In response to this, this study has identified on target prevention strategies that best dismantle causes of project distress from their sources. Accordingly, Earned Value Analysis (EVA) was mentioned by 29% of the respondents as the best prevention strategy.

Earned Value Analysis (EVA) is a mechanism that can help determine how much work was accomplished for the money spent for the duration of the project. Hence, EVA detects trends in both schedule and budget progress. Therefore, it enables project teams to make meaningful comparisons between actual and planned schedules and costs; and take corrective actions if there is any sign of discrepancy between the two. In essence, the earned value method measures the value of the work actually accomplished at the cost rates set out in the original budget. It also insures that cost risk is minimized and cost control is optimized. Similarly, a significant feature of an earned value analysis is that the calculated earned value is compared to the scheduled value to measure schedule performance. In brief, EVA prevents project distress through putting continuous cost and schedule control mechanisms in place, and thereby minimizing the risks of cost and schedule overruns.

Likewise, milestone trend charts were discovered to be the second most important instruments of preventing project distress. Milestones are significant zero-duration events which merely indicate whether a certain event exists in the project or not. The milestone trend chart plots the difference between the planned and estimated date of a project milestone at each project report period. So, it reviews a project schedule with the intention of preventing schedule overrun before it materializes. Accordingly, if the chart indicates a slippage, then remedial actions are taken to prevent possibly upcoming complications.



(Source: Own Survey)

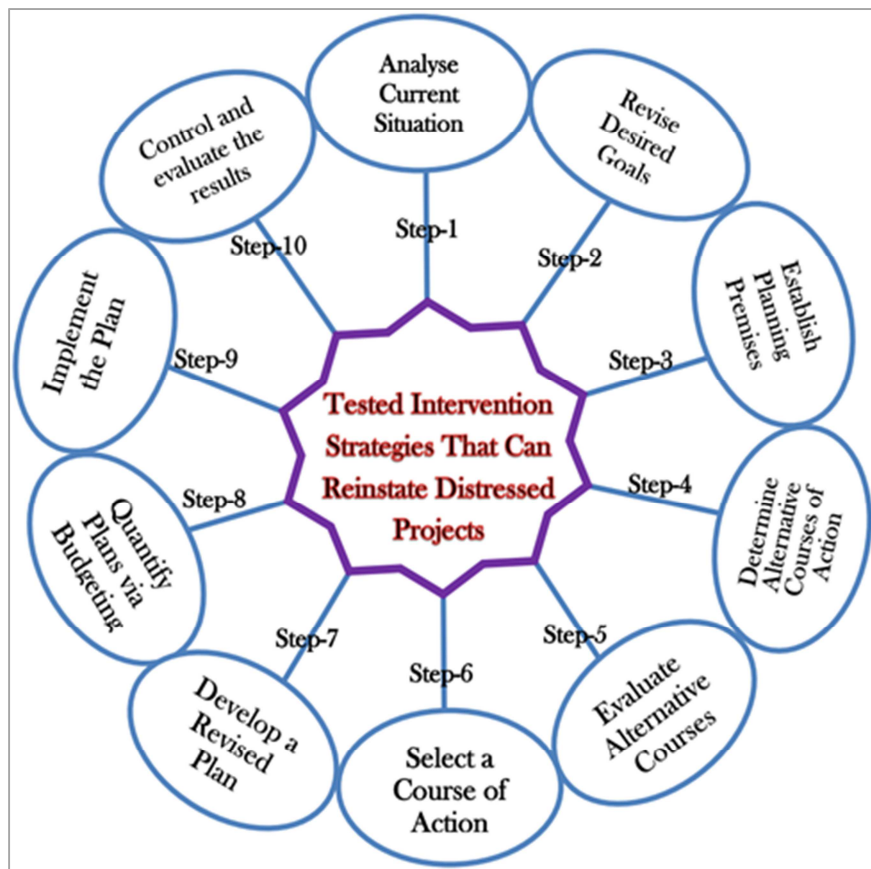*Figure 4. Operational prevention strategies for distressed projects.*

In addition, having a solid risk management plan, comprehensive requirements documentation, and thorough work breakdown structure (WBS) were nominated as other effective prevention tools to be put in place by projects of all kind. (See the figure above).

On the other side of the spectrum, no matter how hard the project team worked to prevent its project from becoming distressed, some projects are destined for distress. Now, prevention becomes meaningless, and intervention arises as the only cure for the problem. Consequently, the project team has put all its energy together to reinstate its project. For this effect, taking advantage of the data collected from multiple data sources, the researcher of this study has compiled ten tested steps of intervention strategies to reinstate a distressed

project. Besides, surprisingly enough, there was a complete consensus among the research participants on the effectiveness of the intervention strategies disclosed on the figure below.



(Source: Own Survey)

*Figure 5. Tested intervention strategies that can reinstate distressed projects.*

As a picture is worth a thousand words, no explanation, the picture describes itself.

Finally, this research examined the most attention worthy roles and responsibilities of the Project Management Office (PMO) with respect to a distressed project condition. The prevention and intervention strategies for distressed projects become effective only if all concerned stakeholders work together. In view of that, the project management office is the most concerned office expected to do everything possible to prevent project distress, and restore the project if already distressed. In this regard, the principal responsibility of the PMO is to continuously assess the project performance in terms of its plan/schedule/budget. The PMO should also have hands-on supervision over the project to detect errors and apply relevant corrective actions before the problem develops into a distressed condition. Generally, the role of the PMO concerning distressed projects is very fundamental. Hence, this study has identified its ten most important roles and responsibilities that are likely to prevent project distress or reinstate a project, if already distressed. Here it is also worth to mention that these roles and responsibilities should be performed for the whole duration of the project consistently. To end with, the figure below is compiled to reflect the research participants' comprehensive consensus on the subject, as revealed by the data analysis of the research.



(Source: Own Survey)

*Figure 6. Roles and responsibilities of the project management office (pmo) with respect to distressed projects.*

# 7. Conclusion

Since projects are planned in a pre-determined or forecasted future working environment, unforeseen circumstances are sure to play/occur no matter what. These unforeseen, but happening, circumstances cause variations between planned and executed project milestones which eventually lead to distressed project conditions. Therefore, unforeseen circumstances are unavoidable and always there, and so are variations. Thus, for the reason that variations are inescapable, it is not uncommon to see one or more of the project milestones go in an unexpected direction. But it is the Project Management Office's responsibility to bring the project back on track and ensure its successful execution. Otherwise, the project will be in uncharted territory, off its map, and the whole project could go out of control. In cases where the deviations between the plan and actual performance are material and obvious, some form of corrective action is necessary to bring the project back on track. This is a reality that projects of all form and size face; therefore, it's a problem that must be dealt with. That is the sum and substance of this research paper.

Therefore, projects should have well established performance measurement procedures that help them assess the magnitude of variations that do occur. These procedures also give the Project Management Office (PMO) the opportunity to spot signs of a project potentially becoming distressed and take preventive or corrective actions before it materializes. In addition, a good performance measurement procedure also provides the project management office with advance warning of potential problems before it is too late to correct them. Moreover, these early warning signs prepare the PMO to similar pending problems and the potential distressed situation, indicating that some preventive action is called for. Finally, it is important to note that the performance measurement procedure (which is incredibly important tool of prevention) is not a one-time fix, but is a continuous cycle of importance that has to be performed by the project management office and other stakeholders consistently. To sum up, prevention is the best option in all possible means of measurement.

Even though there is no guarantee that prevention strategies will actually prevent a project from becoming distressed, the prevention attempt should always be the first and the spontaneous response to all signs of project distress. Yet despite the project team's best efforts, some projects are destined for problems. Sometimes it's the team's fault, and sometimes it's just the roll of the dice. What is important is to protect the project against the unexpected and to have early warning signs in place to minimize the likelihood of projects becoming distressed. Prevention strategies are proactive approaches that are developed to diminish the possibility of projects becoming distressed. At the same time, before employing any preventive strategy, a rational and down-to-earth cost-benefit analysis should always be done to justify the need for the preventive action. Justifying the benefits of prevention measures is of high importance because at times preventive actions are even more expensive than the project failure as a whole. Therefore, the choice of the right prevention strategy is a strategic decision that determines the project's outcome in the days to come.

On the other hand, the effectiveness of prevention strategies often depends on how project team members see their own goals in relation to the goals of their team. Most project distresses, and finally failures, happen either because no one has a clear sense of what the project team is going to do or because some members in the team think one thing and others think something else. However, if the project's plan or the team's terms of reference has written down clearly defined expectations and gotten everyone to agree to it, it is very likely that the project has passed those drawbacks. Yet in the face of all efforts, if a project becomes distressed, intervention strategies will be the last resort for the problem.

# 8. Recommendations

Based on the above research findings, the researcher of this study makes the following recommendations for future projects, bearing in mind the uniqueness of every project.

1) Future projects should take into account the need to establish an early warning system and prevent a project from becoming distressed.
2) Since project performance measurement procedures can be powerful tools for early detection of distressed conditions and implementation of the appropriate corrective actions, a project should have as many milestone events as possible at which a project performance measurement takes place.
3) Projects should put their full energy on prevention strategies as it is cheaper to prevent projects from becoming distressed than to reinstate them once distressed.
4) Before the decision to apply intervention strategies to a project (that is deemed distressed) is made, proper cost-benefit analysis should be done to decide whether or not the organization has to invest the extra time and cost required to apply the intervention strategies and complete the project, given its current status and expected outcomes.

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