* **Metrics**

1. **Schedule**

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| Metric Name | Require Data | Objective | Strength | Weakness |
| Measure current status of progress | Total hour, task used | - Help PM know assigned tasks in schedule.  - Help you measure progress of schedule. | Ensure the progress of project clearly |  |
| Measure working performance | Total hour spend for each task | - Help PM evaluate performance and effort of team | Ensure performance of team |  |

1. **Budget**

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| Metric Name | Require Data | Objective | Strength | Weakness |
| Return On Investment | - Total benefits  - Total cost | - ROI is used to calculate the ROI for our project  - < 20%: Project can’t implementation  - >= 20%: Project is ready for implementation | - One of the key elements of any project proposal is the project budget  - Project personnel will use it as a guideline to fulfill certain project milestones | This indicator is a long time to wait for payback |
| Total Payback period | - Total Cost  - Annual $ Saved | - PP is used to calculate the pay- back period of our product  - More than 3 years: Project can’t implementation  - Less than 3 years: Project is ready for implementation | Ensure the budget of project clearly. | Ignores the time value of money. |
| Breakeven analysis | - Fixed costs  - Revenue per unit  - Variable cost per unit | - BA is used to analysis breakeven  - >6000 (License) & >3000 (Dev License): It is not realistic | Find any error in budget | It’s very hard to define exactly fixed budget |
| Net Present Value | - Cash flow in time  - PVIF | - < 0: Project can’t implementation  - <= 20% (investment): Project is viable  - >20% (investment): Project is good for investment | Analyze and evaluate budget of project relatively | In many case, IRR is not as effective as ROI |

1. **Earned Value**

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| Metric Name | Require Data | Objective | Strength | Weakness |
| BCWS | It is the rolled-up summary of a resource | Budgeted Cost of Work Scheduled | Using EVM can track project progress accurately by comparing work actually been completed against work planned. | Weakness of EVM is very hard to implement on small project |
| BCWB | the dollar amount of work that was actually accomplished | Budgeted Cost for Work Performed |
| ACWP | Money spent up  to the current date | Actual Cost of Work Performed during a given time period |
| Schedule Performance Index ( SPI ) | - BCWP  - BCWS | - Using to calculate Schedule Actual / Plan Rate |
| Cost Performance Index ( CPI ) | - BCWP  - ACWP | - Using to calculate Cost Actual / Plan Rate |
| Cost Variance ( CV ) | - BCWP  - ACWP | - Using to calculate deviation Cost about Actual and Plan. |

1. **Risk**

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| Metric Name | Require Data | Objective | Strength | Weakness |
| Risk identification | - Sources may cause problems | Using to identify risk may be happen in project and calculate explore of each risk | Define risk and solve problem. | Don’t Provide full forecast also many risks have not been detected |

1. **Productivity**

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| Metric Name | Require Data | Objective | Strength | Weakness |
| Productivity | Total actual time in one week | Productivity is a measurement; help developers measure their effectiveness of work. | The simplest way to define productivity is measure OUTPUT/INPUT. In software, this is SIZE/EFFORT | But define exact size or effort in software is a hard work. |

1. Team Morale

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| Metric Name | Require Data | Objective | Strength | Weakness |
| Employee Satisfaction | - Total % positive of key aspects  - Number of key aspects | The management should find out their employees carefully so need calculates employee satisfaction | Find out and improve working environment, communication, chance to increase satisfaction. Focus on communication. | Morale is high but easily reduced, management should give solution to keep it high and increase in future. |