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Customer Success Is Our Mission

Metric systems for executive overview

Martin Woznica & Jesse Crowley
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Outline

- Identification of Key Performance Indicators (KPIs)
- Analyzing data collection sources
- Metrics establishment
- Determination of reporting methodologies
- Effective metrics and reporting deployment
- Conclusion

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Identification of KPIs (1 of 2)

- Key performance Indicators (KPIs) identify the health of the business, aligning cross-functional business goals to their corresponding drivers (process and product)
- Limited to three to five business objectives (e.g. improved schedule performance, waste reduction, on-time delivery, etc…)
- Identify expected product and process threads and validate through interviews of leadership
  - Ensure identification of SMEs and key data input systems
  - Understand how the output of the metrics will be monitored
  - Identify accountability, at all organizational levels

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Identification of KPIs (2 of 2)

- Identify logical metric groupings and prioritize business need based on expected impact (e.g. Waste reduction – Rework, Scrap, DPU, Cost of Quality)
- Map the corresponding key business process identifying data sources, gaps in collection, and accountability
  - Establish sub-teams to address key process deficiencies or system changes to collect all needed data
- Validate understanding throughout the value stream
  - Process flow and system interfaces including actors
  - Expected resultant system values (Rework or DPU are expected to be X)

Effective Metrics Require Cross-Functional Buy-In

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Analyzing data collection sources

- Understand the flow of data through architectural diagrams
- Ensure mapping of business data keys (master data), for legacy systems, including programs, parts, suppliers, etc.
- Translate database and system nomenclature to existing business language
- Validate core data elements are meaningful and consistently collected (e.g. Defect and Causal information)
- Means test the data and reconcile results (counts and aggregations are as expected)
- Modify existing systems or processes to ensure actionable information

System's Thinking Drives Understanding

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Metrics establishment (1 of 2)

- Measures or counts of activity have limited value
  - Should only be applied, when driving a burn down plan or if output is at a sustained level, for a period of time
- Metrics enable actionable data that can be consumed at all business levels requiring normalization
  - Products and processes are not all created equal and should be conveyed based on complexity, volume, and/or lifecycle stage
  - Basic calculation should be consistent across impacted area
    - Allowing multiple calculation moves the focus, from problem solving to metric interpretation

Normalization Enables Broad Understanding

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Metrics establishment (2 of 2)

- Goals must be established, based on the targeted area
  (defect quantities per defined unit, would generally be higher, in development, then production)
- Baselines are determined based on current performance
  (e.g. average of the previous 6 or 12 months)
- Targets are based on executive expectations, as a driving factor, ensuring buy-in
  - Achievement of X value across, within a targeted area, or an overall reduction of X percent
  - Align with all levels of management to ensure buy-in and enforcement

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Reporting methodologies (1 of 2)

- Conveyance of metrics will vary between using groups
  - Executives are generally focused on areas of concern or high-risk, and the corresponding actions taken
  - Middle management is focused on metric trends and forecasting, within their area of oversight (ensures executive goals and expectations are achieved)
  - Front line managers drive performance through identification of issue drivers (daily or weekly problem recognition and resolution)
  - Engineers are accountable, for their personal quality, schedule, and cost (daily or multiple times per day recognition of areas that exceed control limits or goals)
- To enable common objectives, the metric definition and calculation will always roll up, from the bottom to the top

One Size Does Fit All – Reporting Must Match Organizational Role

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Reporting methodologies (2 of 2)

- Executive Level
  - Focused on and-on, stop light views of exceeded thresholds including trend indication
  - Link to actions taken to meet the established goal
- Mid-Level Management
  - Views of metric values over time and their corresponding trends (individual metric level by area of oversight)
  - Ranked bars based on target area, for targeted corrective action
  - View and validation of low-level action plans
- Front-Line Supervisor
  - Weekly performance trends and their corresponding drivers, per area
  - Visibility based on statistically derived limits, targeting specific areas
- Engineers
  - Daily trends, with granular supporting data, for what-if and root cause analysis

Effective metrics and reporting deployment

- Align metrics to multi-discipline boards and reviews
- Monitor the usage of the metrics and underlying reports across subject matter domains
- Enable cross-function change control boards, for consistency and broad application
- Evaluate trends and goal achievement, at a macro level
- Communicate the metric objective, methods of interpretation, and accountability at all levels
- Ensure metric and data SMEs are identified, to answer data and analysis questions

Communication Success = Metric Success

Conclusion

- Development of Executive Level Metrics requires extensive research, analysis, and validation
- Do not underestimate the need to communicate and elicit buy-in of stakeholders, at all levels
- One size does not fit all – there will be varied metrics and reporting, for various organizations and roles
- Metrics development is a marathon and not a sprint, the metrics requirements will change with organizational maturity