

SUMMER TRAINING REPORT

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ABBREVIATIONS

Abbreviation	Description
ALS	Advance Life Support
BLS	Basic Life Support
EMRI	Emergency Management & Research Institute
GPS	Global Positioning System
GVK	Gunupati Venkata Krishna
KPI	Key Performance Indicator
LTD	Limited
PVT	Private
SLA	Service Level Agreement

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PART – 1

SUMMER REPORT

Background

An ambulance is a medically equipped vehicle which transports patients to treatment facilities, such as hospitals. The term *ambulance* comes from the Latin word “*ambulare*” as meaning "to walk or move about".

Ambulances are used to respond to medical emergencies by fully equipped devices and paramedics along with. They can rapidly transport paramedics and other first responders to the scene and reaches to the patient and transport patients to hospital or other definitive care.

The history of the **Ambulance** begins in ancient times, with the use of carts to transport incurable patients by force. Ambulances were first used for emergency transport in 1487 by the Spanish, and civilian variants were put into operation during the 1830s.

Service Providers

Government ambulance service, Voluntary ambulance service and Private ambulance service.

108 Ambulance Service

GVK EMRI is an Indian not-for-profit organisation and the largest ambulatory care provider in the world, providing emergency medical services. EMRI was launched on August 15, 2005 with 14 ambulances and 70 employees in Andhra Pradesh. GVK EMRI's service has grown to 16 states and a fleet of 10,000 ambulances and 47,000 employees.

How it works

When an emergency is reported through 108, the call taker gathers the needed basic information and dispatches the appropriate service.

Emergency helped dispatched through this process is expected to reach the site of the emergency in the average of 18 minutes. Pre-hospital care will be given to the patients being transported to the nearest hospital.

Organization Introduction

StanPlus Technology Pvt Ltd. provides 24/7 emergency support and medical transportation ambulance services. The Company offers private ambulance with around 900+ fleet management system for patients. StanPlus Tech serves patients in India and Singapore as well. The organisation was founded in the year May ,2016 and the founders are [Antoine Poirson, Jose Leon & Prabhdeep Singh](#).

Their fleet Ambulances can support patients in 15 minutes across Hyderabad and Telangana, equipped with ALS, BLS, Cardiac and Patient transport Ambulance. The organisation has become a successful private ambulance service provider in Telangana and now expanding to other states and cities including Bangalore, Vizag, Raipur, Pune etc.

Stanplus understands the importance of time & quality medical care during an emergency. In most cases, these are the factors that can make or break a case. Hence, they provide the most professional & technologically advanced medical care & ambulance services that are catered around providing swift & world-class healthcare services at the time of need.

Various transport services provided by the organisation:

TYPE OF VEHICLE	EQUIPMENTS
Patient transport vehicle	Hydraulic & slide stretcher, Oxygen cylinders, Extra passenger seats & First aid kit
Basic life support	Immobilization sets, Monitoring and diagnostic Oxygen supply & Basic respiratory support consumables & disposables safety tools
Advanced life support	All BLS equipment, Respiratory support infusion & Drug administration equipment
Medical utility vehicle	Wheelchair access, Helpers for mobility & Seat swivel
Air ambulance	Customizable based on patient's condition

[Table 1 – Vehicle and Equipment specifications in organisation](#)

Project Overview

Project Title

A study on assessment of Vendor Onboarding Process

Project Objective

General objective

To look out the operator onboarding process and suggest addition of the important activities and obsolete the activities that are not making contribution to it.

Specific objective

- To get an insight of the current ambulance operator onboarding process.
- To recommend some changes in the ongoing process to make it more effective.

Project Duration

1 Month (7Th June - 6Th July ,2020)

Importance of project from organisation point of view

1. Enable the organisation to develop the process & work effectively
2. Allow organisation to review their process and incorporate required changes

Methodology

A descriptive research study is done on the organisation's Ambulance operator onboarding process. A transparent approach was used for research synthesis. Multiple databases were used as sources of information including Google Scholar, PMC, PubMed and other articles and links available on google. Multiple search terms were also included in the research like keywords related to onboarding process, vendor, operator and Ambulance. The data were collected in the month of June and July of year 2020 and the source of data were organisation's documents that were containing information about the onboarding process of Ambulance operators. As there was limitation of doing research work from home hence information and data is collected over calls. The partner development team of the organisation is included in collecting the data and information as the team is responsible for onboarding the vendors. Hospital Managers and Fleet coordinator were also interviewed to collect the information about the vendor performance and management. Relevant details related to the objective of study were asked from the organisation and all the documents received were cross checked and verified with the information provided over the calls. Inclusion criteria were the information and process document containing relevant details about Ambulance operator only. Exclusion criteria excluded the aggregators vehicle and the organisation own vehicle.

Onboarding Process

Introduction

Onboarding is the process of collecting prospective vendor information, assessing vendor compliance and risks, and integrating them to the organisation platform to build strong vendor relationships that result in improved business outcomes for both parties.

Importance of structured onboarding process

A structured onboarding process is the foundation of a strong operator management program and is the first step to building those crucial business partnerships with the vendors.

It strengthens the relationships, and also helps the organization to:

- Mitigate risks, reduce human errors & automate basics tasks.
- Streamline processes and increase efficiency enables to track data and workflow.
- Ensure compliance with regulations.
- Develop a positive reputation in the industry.
- Reduce redundancies and time to approve and activate new vendor.

Discussions



Figure 1 – Steps of Current Onboarding Process in Organisation

1. Operator briefing

This is the first step of onboarding where the operator is given details about StanPlus, conditions for agreement and required documents for registration. Then there is negotiation to decide on the commission to be shared with StanPlus.

2. Operator qualification & registration

Post the briefing, operator's and its vehicle data will be verified and checked against eligibility criteria. Once the operator is qualified, an application form will be filled, and the agreement / contract will be signed on paper.

3. Operator vehicle evaluation

The third step of onboarding process is to quality check the vehicles against the prescribed standards and asking the operator to make the changes if required. A reference check of the operator will also be done.

4. Driver vehicle & readiness

In this step, steps will be taken to make the vehicle and driver ready to operate once they are live on StanFleet. GPS Installation and driver training are the two key activities in this phase.

5. Go live

Once all the above steps are satisfactorily completed and operator is ready, the partner team will then share the operator's info to Customer center and Finance team to make them live on StanFleet. Thereafter, the operator is said to be successfully onboarded.

Findings

This section represents the findings of this research study.

In the research study of Ambulance operator onboarding process, it was found that:

- In the organisation, there are approximately 150+ Ambulance vendors associated to run the daily business by providing Ambulance for patient transport.
- It takes 3-4 days of timing to get the vendor onboard including all documentation and verification process.
- Current vendor onboarding is a 5 steps process starting from operator briefing, registration, evaluation, vehicle readiness and ending to go live platform as already discussed in the discussion section.
- It was found that adherence to rules and regulations is not strictly communicated and documented for vendors/operators to follow.
- After onboarding, there is hardly any visit to the vendor location to check the vehicle condition and no such KPI are designed for evaluating vendor performance.

Limitations

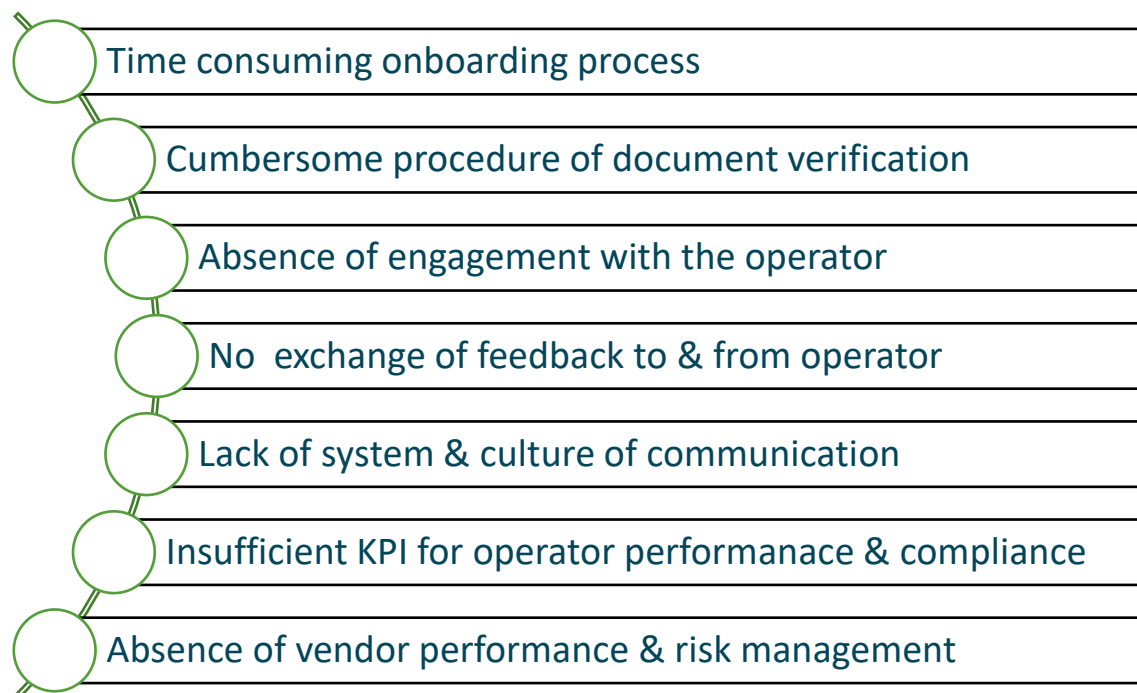


Figure 2 – Limitations of the Onboarding process

Recommendations

1. Automate the Vendor Onboarding & Document Verification process

More the automation of task & process, the easier doing business will be both for – operator and organisation. When onboarding new operator, always look at ways to save time and the efforts of human workforce. A vendor portal or onboarding software will show routine details they might otherwise have to inquire about in person.

Advantage:

- Vendor master data is centralized, along with invoicing, order, and payment history.
- Allows to share information internally in the organisation (Finance, sales, operations).
- Easier documentation & verification & less time consuming.
- Systematic route so that no steps get forget & Mitigate risks.
- Transparency in payment and order processing.
- Enables the smart view of all the operator cases (selected, pending, rejected).

Available at Platforms like:

Capterra, LeadSquared, Staveapps, Hicxsolutions, Tipalti etc.

Cost

The best way to get the cost is to request a quote.

Limitations:

- Can sometimes be a slow-starter
- Can hold day-to-day business operations in the beginning in ways you would likely prefer to avoid.

2. Engagement of Operator (Engage each operator at right time)

One cannot succeed in business without creating relationships. Nobody wants to do business, especially ongoing business, with someone they don't know and have not learned to trust. It addresses a broad range of activities that takes place every day with vendors on the ground.

How it can be achieved:

Activities	Emphasis & Focusing on
Meetings & Club	To review the quality of the service
Monthly report on their performance	Communicating the profit that organisation is making from them
Up sell & Cross sell	Understand the vendors business and identify the area to give assistance to vendor by providing our services Advantage: a) Add on of new client b) Build up the revenue cycle
Win-Win is the goal	Look for negotiation points that can help both sides accomplish their goals
Training & Education required for smooth running of business	Sometimes it is required to update & train the operator for our business
Engage vendors in key strategy sessions	Invite the vendor to strategic meetings that involve the product they are involved in

Table 2 – Activities for engagement of operator

Advantage:

- Establish & maintain mutually beneficial relationship.
- Builds the trust and allows free flow of ideas for operations.

Limitations:

- Time consuming process and activities.
- Not easy task to indulge with large number of operators at a time.
- Requires specific and desired workforce dedicated to this only.

3. Create Feedback System (To & From Operator)

The organisation should be prompt on giving feedbacks at regular intervals and ensure a system to give and receive feedback as well after completion of the onboarding process or during the contract as well.

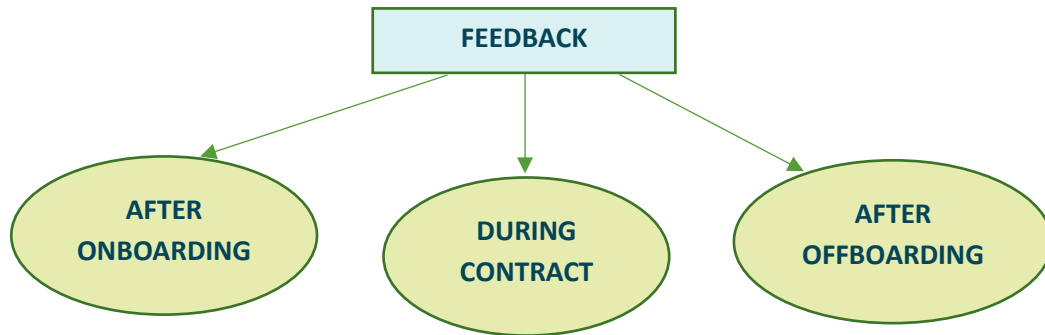


Figure 3 – Stages of feedback process

After Onboarding	During Contract	After Offboarding
• Take feedback from the operator about the onboarding process • Ask about the easiness or any difficulties faced during the verification and registration process • Can be done immediately after the onboarding process	• Give feedback to the operator about their services that are being offered • Communicate about their positive attitude & any mishappening if occurred during the contract • Can be done at fix at fixed interval/ randomly	• Give & take feedback from the operator about the organisation behaviour and attitude towards them • Mention about their quality of services during the contract • Can be done within 30 days after offboarding procedure

Table 3 – Activities for feedback process

Advantage:

- Allows the organisation to learn if vendors want something or not.
- Allows to catch the problems during all three phases.

Limitations:

- Organization have to ensure a dedicated system & team for the follow up at each step.
- All the vendors/operators might not find this useful and will not be likely to bother themselves about the feedback.

4. Inherent the System & Culture of Communication

Frequent communication & interaction with the vendor/operator can make a lot of difference and can get the best out of them which would be beneficial to our service.

How it can be achieved:

- A quick call/e-mail on the start of the week to boost the performance.
- A quick review on the weekend.
- Communicating about addition of any service in the organization to them (so if possible they can update their services according to it) e.g. Teleconsultation, Transportation of life threatening cases.
- Reminding & guiding them to strictly adhere to the compliance.

Advantage:

- Powerful mean of persuasion & control.
- Less expensive and saves time.

Limitation:

- Absence of permanent record.
- Greater chance of misunderstanding when not communicated properly.

5. Develop Performance Management System for Vendors

With Vendor Performance management system, organization can ensure that the organizational and departmental goals are met in the most efficient manner possible. Organization can track the performance of vendors to provide instructions for making it more productive and efficient.

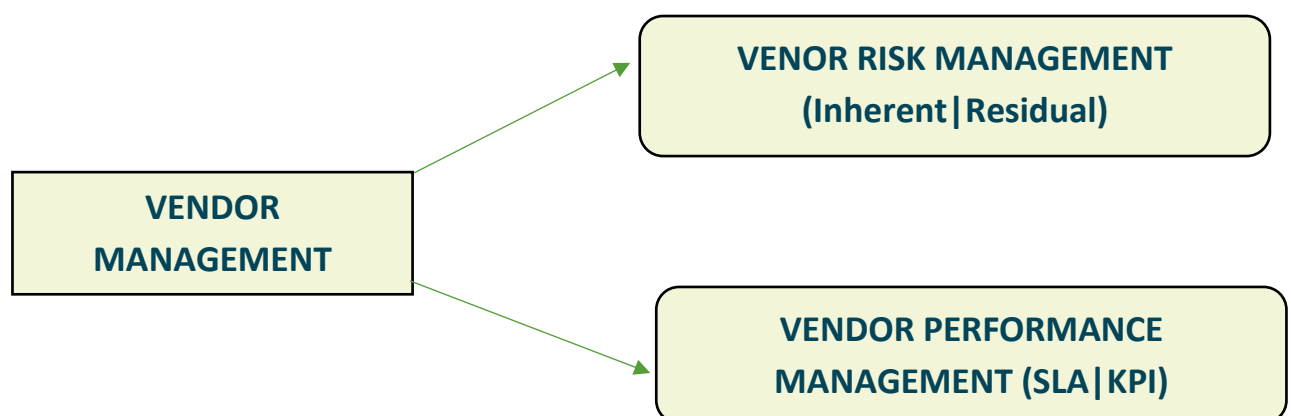


Figure 4 – Vendor performance management program

How it can be achieved:

KEY AREAS	KPI
Quality	- Delivery of service up to the expected and contract level - Value of the service to organization - Any issue with the services provided - Delivery of the service by different mean - Checklist issued for the mean of verification
Risk assessment	- Risk assessment should be done periodically - Inherent & Residual risk should be identified - Corrective measures should be adopted to avoid any such situation which could harm the business position
Delivery	- Transportation of patients were on time - If any delay in service then for how long any why it happened - Operators capability of taking more number of request during any emergency
Cost savings	- Any raise or change in the commission set or price of any service associated with it - Negotiation on better terms for quality and expansion of service
Customer service	- Any issue in the customer service from operator side - Quickly & Easily it is solved - Operator communication during any issue
Expansion & innovation	- Operator follows improvement process when communicated - Valuable suggestion from the operator in terms of: a) Cost reduction b) Quality improvement c) Expand features of service provided

Table 4 – Key Performance Indicator for vendor management

NOTE: Tracking any or all of these KPIs and using operator scorecards as part of a well-executed vendor management program, is both easier and allows the organization to have eye on their vendors.

Advantage:

- Critical performance measures are tracked and reported.
- Protect and Improve brand/reputation.
- Segment and rank operators.
- Improves quality and iterates process.

Limitations:

- Biggest challenge is to implement it in system, and it requires changes in behaviour and culture.
- Requires investment – in terms of time, money and human workforce.

Conclusion

Strategic vendor partnerships help organizations achieve their business objectives cost-efficiently. With increasingly complex vendor networks in the organisation, rising customer demands, and a rapidly changing regulatory environment, there is tremendous pressure on organization to ensure that their vendors maintain consistent compliance with internal policies and various evolving regulations. Without a good onboarding process, organization is facing issues in management of Ambulances provided by vendors, quality of service provided during transportation of patient, and in the later stage organisation may be at risk of losing valuable business due to poor vendor management process and lack of performance management and communication with the vendors. Hence, continuous training of the dedicated staff of Ambulance provided by vendors, management of ambulances and partner nurturing is required to achieve the quality.

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PART – 2

ONLINE COURSE REPORT

DATA ANALYTICS FOR LEAN SIX SIGMA

Duration of the Course

Approximately 15 hours to complete.

Learning Methodology

Video lectures, Practice Exercises, Reading material and Quiz.

Website/ Organization

Coursera (<https://www.coursera.org/learn/data-analytics-for-lean-six-sigma/lecture/Jsd rz/introduction-to-data-analytics-for-lean-six-sigma>)

Objective

- To learn the data analytics techniques that are typically useful within Lean Six Sigma improvement projects.
- To learn how to use statistical tool Minitab for data analysis.

Key Learnings

- Analysis and interpretation of data
- DMAIC
- Minitab Statistical Software
- Hypothesis testing

Course Description

Lean Six Sigma is a methodology for process improvement, and it makes use of data and data analysis. Lean six sigma is a data-driven approach to process improvement.

Course Focuses on:

This course focuses on how to use data to analyze and solve problem with strong focus on practice and applications.

This course explains how to visualize data. It discusses visualizing single variables as well as visualizing two variables. It is essential to first learn the distinction between numerical and categorical data before visualization.

The various exercises during the course allows to use Minitab which is a statistical software package. It is used in many organisations by Belts executing Lean Six Sigma projects.

This course also focuses on the DMAIC approach required for process improvement in lean six sigma project.

Statistical Software:

This course gives the introduction of statistical software Minitab to analyze data and interpret results. Minitab is a statistical software package. It is used in many organisations by Belts executing Lean Six Sigma projects.

Why Minitab:

- It is easy to use
- It executes all statistical calculations
- It matches excellently with Lean Six Sigma
- It is widespread in Industry

Deliverables of the course:

- how to analyze data,
- how to interpret data and
- how to use data for solving problems.

Course Content

WEEK	VIDEOS & QUIZ	KEY CONCEPTS	KEY LEARNING
WEEK 1	9 Videos, 1 Practice Quiz, 1 Graded Quiz	• Introduction to lean six sigma, • DMAIC, • Selecting CTQ, • Sampling, • Organising data, • Units and Measurement definition, • Minitab	➤ Explain what Lean Six Sigma is ➤ Distinguish between the five phases of DMAIC ➤ Use CTQs to make a problem quantifiable and measurable ➤ Collect a representative sample ➤ Organize data and distinguish between units and variables ➤ Operational definition corresponding to a CTQ
WEEK 2	8 Videos, 1 Practice Quiz, 1 Graded Quiz	• Numerical and observational data, • Descriptive statistics, • Visualizing Numerical data, • Visualizing Categorical data, • Pareto chart (80/20 principle), • Histogram & Boxplot, • Visualizing two variables	➤ Judge if data is numerical or categorical ➤ Interpret descriptive statistics ➤ Create a histogram and boxplot, and interpret both graphs ➤ Create a bar chart, a pie chart or a tally table, and interpret the results ➤ Create a Pareto chart and interpret the chart ➤ Create a suitable graphical visualization for two variables and interpret the results

WEEK	VIDEOS & QUIZ	KEY CONCEPTS	KEY LEARNING
WEEK 3	7 Videos, 2 Practice Quiz, 2 Graded Quiz	• Population & Sample • Probability distribution • Estimation & Confidence interval • Probability Plot • Empirical CDF • Normal distribution	➤ Understand the relationship between a sample and its population ➤ Understand the concept and use of estimation ➤ Quantify the precision of an estimate (using confidence intervals) ➤ Distinguish between different types of probability distributions (normal, lognormal, weibull) ➤ Determine the distribution of a numerical variation using probability plots ➤ Determine the probabilities and percentages using the Empirical CDF ➤ Use rules of thumb to compute probabilities for normally distributed variables
WEEK 4	6 Videos, 1 Practice Quiz, 1 Graded Quiz	• Introduction to data analysis • Hypothesis testing • Causality • Introduction to anova • Anova analysis • Kruskar wallis test • Two sample test • Test for equality of variance	➤ Judge when ANOVA is the applicable method ➤ Perform an ANOVA and interpret the output, especially p-value and R-squared ➤ Judge the validity of ANOVA using a residual analysis ➤ Perform and judge interpret a Kruskal-Wallis test ➤ Compare two groups by means of the two sample t-test

WEEK	VIDEOS & QUIZ	KEY CONCEPTS	KEY LEARNING
WEEK 5	6 Videos, 2 Practice Quiz, 2 Graded Quiz	• Test for equality of variance • Corelation • Introduction to regression • Quadratic regression • Chi-square analysis • Logistic regression analysis	➤ Interpret and use correlation ➤ Judge when regression is the applicable method ➤ Perform a regression and interpret output, especially p-value and R-squared ➤ Compute and interpret a prediction interval ➤ Perform and interpret a quadratic regression ➤ Judge the validity of regression using a residual analysis