



**RESEARCH REPORT:  
UNDERSTANDING THE METRICS THAT  
MATTER IN A RAPIDLY CHANGING  
FIELD SERVICE SECTOR**

published by:

FIELD SERVICE NEWS

in partnership with:

**simPRO**



# BRAVE NEW WORLD: DIGITALISATION AND SERVICITIZATION

Our world is changing before our very eyes. At every junction parts of our lives, both personal and working are becoming digitalised, automated and optimised.

While this is something being seen across almost all vertical industries, the field service sector is very much at the coal face, feeling the wind in our faces as this rapid evolution into a new paradigm of industry spirals around us at full pace. In many ways, this could be put down to the fact that for a long-time field service as a sector has embraced the two core factors driving our industry forward- technology and people.

It seems like it has been the norm for forever for us all to walk around with more computing power in our pocket than NASA used to send man to the moon, but the fact is this is a recent trend approaching its first decade of maturity. Field Service Engineers meanwhile have been collecting and returning data from the field, via mobile devices for far, far longer. Technology has been interwoven into the fabric of field service delivery for a long time.

Similarly, delighting customers has always been at the heart of excellent field service delivery. This has then been further magnified ever since the global financial collapse of 2008- which saw margins reduced to their bare bones meaning those that survived in those testing times, and who went on to thrive later, were those who were able to compete on the only metric that remained- customer satisfaction.

Indeed, it could be argued that it is the success of those companies that were able to navigate the troubled waters of 2008, that has in some manner plotted the course for the future of our sector as servitization, a business strategy that has been in effect at least since the 1960s if not earlier, has begun to gain ever greater traction within industry today. It is perhaps, no coincidence that a decade after seeing customer satisfaction come to the fore as a core

competitive factor, we see the rise of servitization. A business approach which in its fundamental inherent design, places the customer’s needs at its centre and as a result, if done correctly, engenders far greater customer loyalty as well as longer and ultimately more profitable contracts.

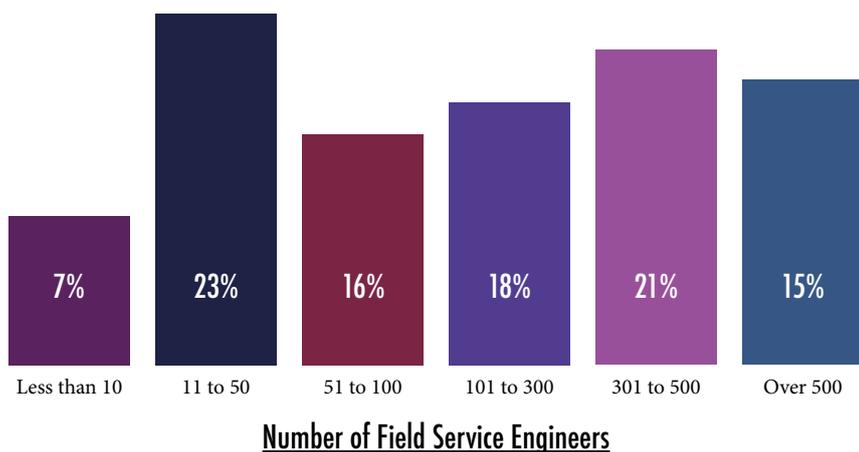
Of course, it could also be argued that the reason we are seeing servitization gain momentum is that the technology that has developed almost simultaneously such as the Internet of Things (IoT), Cloud and AI has also created a perfect storm for service evolution. We have seen in the last decade the introduction of a technology stack which can allow us to drive these business strategies that we have seen coming for a long time, from concept to mainstream reality. Big Data, Machine Learning, Cloud, Mobile and perhaps most crucially the IoT have come together to form a crucial infrastructure that now as they begin to reach a point of relevant maturity, allow us to enter fully into a world of servitization and outcome-based services.

Either way, the truth is that many in field service are embracing both servitization and connected field service today.

But as we enter these uncharted waters, how do we know what metrics should be our guides to whether we are getting things right?

In this exclusive, Field Service News research report, we look at the responses of over 150 field service leaders who are facing such challenges and look to establish the metrics we should be measuring as we move to a world of digitalisation and servitization? The research itself was designed as a broader benchmarking project to establish which key metrics were being measured by field service organisations in 2019. So to begin, let’s take a look at some of the wider findings as well provide some insight into the respondent group we worked with.

## SURVEY RESPONDENTS AT A GLANCE:



**156 Companies**  
**12 Industries**  
**18 Countries**



## THE AVERAGE STATE OF PLAY IN 2019...

Across August and September 2019, Field Service News undertook an extensive research project in which they connected with representatives of 156 field service organisations.

These companies came from all corners of the globe, represented companies of varying sizes from enterprise to SME, with the group also representing several different industry verticals. The project aimed to understand what the core trends are today amongst field service organisations when it comes to the KPIs they are tracking.

The initial responses were collected via an online survey with approximately half of the respondents also agreeing to further interview via phone and email to clarify specific responses and to offer more in-depth insight- which was provided in a 'Chatham House Rule' agreement to allow the respondents the freedom to answer without restrictions under anonymity.

The critical headline finding of the research was that the data revealed that the most common practice amongst field service companies is to measure between 4 and 7 KPIs. However, the data does also show that we are beginning to see a trend in this number increasing.

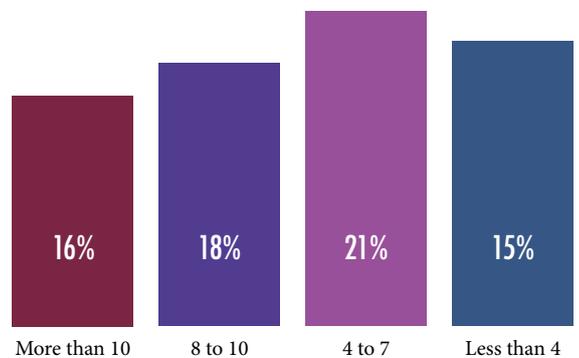
One reason that we are maybe seeing this trend of tracking more KPIs emerge is the impact of new service revenue strategies such as servitization which are adding an increasing demand on service delivery and a different dynamic within the workflows of service operations.

However, it is interesting to note that of the total respondents, four-fifths of these companies have adopted some form of advanced-services program. Within this sub-group, the overwhelming majority of companies stated they had adapted the KPIs they measure as a direct result of doing so.

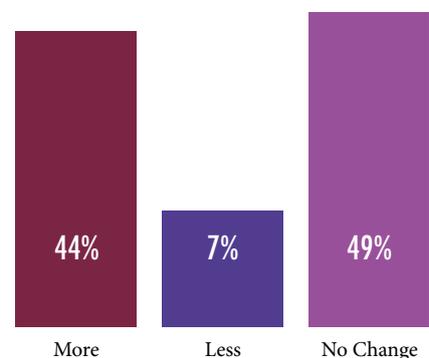
This would certainly suggest that the moves to embracing servitization and digitalisation, which we are seeing become prevalent in our sector, requires rethinking how we measure field service performance.

Even for those companies yet to move towards such advanced service strategies, the overwhelming majority of field service companies now operate as a profit centre compared to the previous traditional position of field service as a cost centre. This transition at large is now almost entirely complete, and it too has, of course, had an impact on the metrics field service companies are

### NUMBER OF KPIs MONITORED:



### ARE COMPANIES TRACKING FEWER OR MORE KPIs :





actively measuring. The fact that just under a fifth of companies now identify a KPI based around profit as the most critical KPI they measure for their business is another signifier of this.

However, perhaps more crucially, we see the shift in importance from field service KPIs being purely operationally focussed to being far more focused on delivering customer satisfaction.

Indeed, the shift towards a customer-centric approach to service is undoubtedly beginning to take hold.

That almost two-thirds (65%) of organisations identified customer satisfaction as either equal to or higher than operational efficiency is undoubtedly a testament to this. Equally, so too is that the data reveals that 91% of companies stated that NPS or another alternative CSAT KPI was one of the most crucial metrics they measure - or that 90% of companies use their field service engineers to collect such data from their customers.

However, it is good to see that there is not a full pendulum swing here away from the metrics that track an organisations ability to deliver service efficiently.

When it comes to the most critical single KPI organisations tracked the majority of respondent companies still put operational efficiency-focused metrics as their number one priority.

This, of course, makes sense as operational efficiency and customer satisfaction should necessarily be two sides of the same coin - both of which then drive the third cog in the wheel - profitability.

Perhaps the most valuable insight that the research reveals is that field service companies at large are beginning to see the importance of maintaining the balance across operational efficiency and customer satisfaction - with just over half (51%) stating this to be the case. It is this dual focus and balance across both areas that will surely drive field service organisations ever forwards if it can be achieved.

**“The most valuable insight that the research reveals is that field service companies are at large beginning to see the importance of maintaining the balance across operational efficiency and customer satisfaction...”**



## WHY THE NUMBERS OF KPIS FIELD SERVICE COMPANIES MONITOR ARE CHANGING...

As we have seen so far, the average number of KPIs that were measured by field service companies is between 4 and 7 KPIs, which 40% of respondent companies stated they tracked. However, the research also revealed that while those measuring more KPIs than the average are currently in the minority, the research data would suggest they are perhaps slightly ahead of the curve.

Indeed, just under half of the respondent companies (44%) stated that they had increased the number of field service related KPIs that they were tracking - but the crucial question is why?

As one respondent explained during a follow up interview around the research findings, "The simple fact is that from within a field service operations perspective, we have moved relatively quickly from occupying a space where customer satisfaction was something that was a by-product of what we were generally measured upon, an after-thought to an extent, to become a primary measure of the success of not just the field service operation but also the wider business itself."

This insight reveals two things.

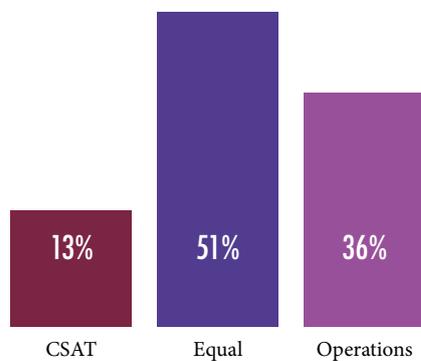
Firstly, it highlights just how profound the broad shift we have seen in field service of the operation being primarily positioned as a cost centre to becoming a profit centre within its own P&L has been. This impact has been significant both in terms of how field service delivery is both viewed and managed internally within many organisations.

Secondly, it also brings to the fore just how crucial customer satisfaction has become as a fundamental KPI to be measured.

Customer Satisfaction is measured by almost all (91%) of the respondents within the survey and identified as the single most crucial KPI measured by just over a third of respondents (37%). As discussed in the previous section, these statistics show substantial continuous growth in the importance of CSAT as a core KPI related to field service success when compared to figures from past years.

However, it is when we cross-reference the responses from this section with the survey with those companies who have indicated that they have already adopted a servitized business model that the striking reality becomes clear. 100% of those companies surveyed who met this criterion listed CSAT as the single most crucial KPI they measured. This indicates a highly credible correlation between field service companies adopting a servitized business and placing CSAT at the core of the metrics they use to measure success.

### CSAT VS. OPERATIONAL:



### HAVE KPIS CHANGED DUE TO SERVITIZATION?





## THE IMPACT OF SERVICIZATION..

So, let's take a moment longer to focus on those companies who are already offering a servitized business solution. Within this subset of respondents, we can, as we would anticipate, also see this correlation between the adoption of new KPIs and the adoption of new business models.

Our research shows that over 80% of those companies that are offering servitized business solutions have had to change the metrics they use to measure success within their business.

"In a servitized business model, you are offering something far more complex than the traditional break-fix approach which ultimately was always fairly transactional at its core" commented one of the respondents whose business offered servitized solutions.

"Previously, our key metrics were all based around SLA resolutions. However, now we have moved into guarantees of uptime we have had to adapt the way we measure the service we deliver for those contracts. Key for us now are KPIs such as Mean-Time-to-Repair and Mean-Time-To-Failure, which we have spent much time analysing to be able to predict how often and when we need to act to meet uptime expectations."

Another factor of moving away from break-fix to a servitized business model is that companies are also moving away from reactive to proactive field service delivery and this is, in turn, having a significant impact in the way successful service delivery is measured.

As another respondent commented, "We used to be 100% reactive, but we are

“In a servitized world, that transactional relationship between vendor and customer is replaced with a much deeper relationship, something more akin to a true business partnership...”

"In a servitized world that transactional relationship between vendor and customer is replaced with a much deeper relationship, something more akin to a true business partnership, and as such CSAT metrics including Net Promoter Score (NPS), but also more sophisticated touchpoints across all sections of both organisations become crucial to our mix of KPIs," they added.

The importance of NPS within the mix of KPIs used by those offering servitized or outcome-based solutions was also flagged up as necessary by another respondent who spoke to us on a follow-up interview within the program.

"Of course, NPS has become very important as our business model has become a lot more customer-centric," he commented.

"However, a lot of our operational KPIs have also changed quite significantly in recent years as we have adopted both IoT on our assets and also offer outcome-based services."

now down to 40% reactive and 60% proactive. Ideally, we would want to get that reactive figure down even further close to the 20% mark if possible."

"From an operations perspective, this means that we are able to be far more efficient in the way we approach our field service workflow and as such the KPIs that are important to us now reflect that somewhat more with Technician Utilisation and First-Time-Fix Rates both being important measurements that we are moving along the right path."

What does seem to be clear however is that the move towards servitization does seem to be driving a trend towards companies measuring more KPIs overall - however, it does appear that these are additional subsets of KPIs within what remains fairly traditional core KPIs.

So what are these core pillars of business performance measurements and are these changing in a world of servitization and digitalisation, or do the fundamentals of business remain the same, always?



## ALWAYS CHANGING. ALWAYS THE SAME.

What is interesting is that while speaking to respondents and also looking at the original raw data of the online survey, we see that on the surface there seems to be a trend for increasing the number of KPIs being measured in total. Even when digging beneath the surface of the findings with follow up interviews as evidenced earlier, this shift to a more complex set of KPIs being required to measure success in a servitized and digitized world seems to be in line with consensus.

However, when we take a moment to step back from the data and the interview notes and look with a simplified yet robust model of analysis it is interesting to see that in fact, mainly the KPIs identified by respondents both in the online survey and follow up interviews as being critical to service operations, still all fit within three traditional areas of operational management.

These are:

- Task Completion
- Productivity
- Customer Satisfaction

We can go even further and add that within each of these categories can be found one of the three most widely cited fundamentally critical KPIs.

These would be:

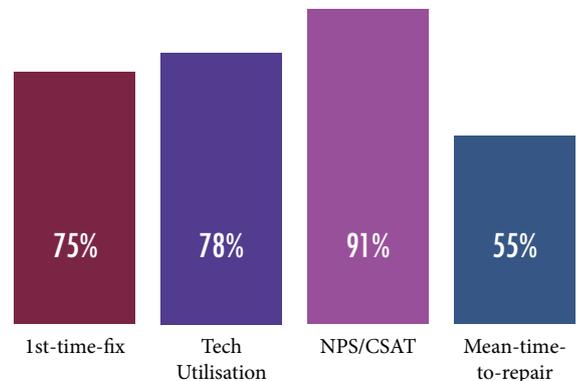
- First-time-fix (cited by 75% of respondents)
- Tech Utilisation (cited by 78% of respondents)
- NPS or alternative CSAT metric (cited by 91% of respondents)

So while over half (51%) of field service companies within our response set have made changes to the number of KPIs they measure, and whilst the introduction of digitalization and servitization can demonstrably be attributed to many of these changes, it would appear that the fundamental areas of field service operations that are being measured remain the same.

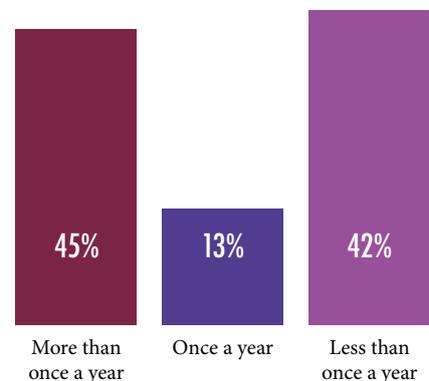
As one respondent put it, “For us, there are perhaps three or four key areas that we monitor in terms of field service operations and these remain constant regardless of the introduction of new approaches to operations or the introduction of new technologies such as IoT which we are now using substantially.”

“However, underneath each of these main areas of focus are several other KPIs that we measure and it is within these subsets of KPIs where we are seeing where we need to make changes to what metrics we are tracking.”

### TOP KPIs MONITORED:



### HOW OFTEN ARE KPIs REVIEWED?





As we began the second phase of the research project and undertook further interviews with respondents, many of the trends that we had begun to see emerge became increasingly apparent. It was perhaps best outlined by one of the respondents whose business was currently running feasibility analysis on whether they could offer outcome-based solutions.

“For us, the challenge is in what financial KPIs we should be putting forward as we have no existing data to base these on.”

“Our board is entirely behind a move towards such an offering. Still, the stumbling point so far for us with KPIs has been in what we should consider as successful in terms of revenue and of course at the end of the day for any business the ultimate KPI is the profit margin.”

“However, without previous numbers to benchmark against, and as the revenue streams are so different to our existing models, we decided that the best option in the initial phase of the project would be to measure the cost reduction of us moving from reactive to proactive service- so Technician Utilization, Travel Time and First-Time-Fix, which have always been important to us anyway, now become not only indicators of performance but also tools to validate the move to outcome-based services.”

“The intention is then to review and re-evaluate these metrics quarterly as the model matures within our business across the next three years.”

It is a tricky conundrum that most field service companies that are seeking to embrace servitization will inevitably face. Yet as in this instance, perhaps it is the why and the how that must change, not necessarily the what.

“The intention is to review and re-evaluate these metrics on a quarterly basis as the model matures within our business across the next three years...”

## HOW TO AVOID PARALYSIS BY ANALYSIS IN A DELUGE OF DATA

by Richard Pratley, Managing Director, simPRO

To avoid paralysis by analysis, it's important to keep it simple. Consider what you want to measure and whether the information your measuring is actionable so you only analyse what you can control.

We can see from this report that 75% of respondents cited improving first-time fix rates as a critical KPI for their business, but the challenge is how to measure this. A good starting point is to consider what the influencing factors are, how to improve them and then monitor for improvements.

Key factors include smart scheduling so businesses can gain real-time visibility of their available resources and ensure they are scheduling engineers with the right equipment and skills. Predictive Maintenance and the use of IoT sensors can speed up the process by identifying potential problems and dispatching an engineer before they even start. Additionally, engineers with access to up to date job information and customer, site and asset history can help to improve first-time fix rates.

When it comes to planning for the longer term, identifying trends in improving response rates is critical to growing revenue and increasing productivity and service levels. Even with the use of predictive technology, a lot of field service operations can still be reactive, meaning on the spot decisions need to be made to get the day back on track. Monitoring and planning for these can be vital.

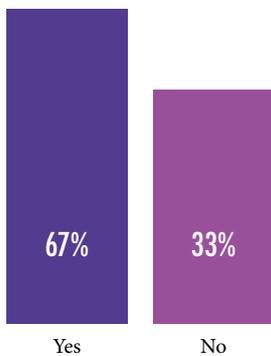
To avoid being overwhelmed by masses of numbers, identify the crucial information you need at any time to make crucial decisions. Breaking information down by department, service type or engineer can make information more digestible.

Business Intelligence (BI) reports and dashboards help to organise your key metrics and spot trends. Graphical dashboards providing eye-catching visualisations to spot early warning signals, enable teams to react more quickly and provide essential week-to-week, month-to-month and year-to-year comparisons.



# ARE WE DROWNING IN DATA OR STANDING ON A POT OF GOLD?

## COMPANIES USING IOT IN FIELD SERVICE:



## COMPANIES USING ENGINEERS TO COLLECT CSAT DATA:



We cannot, of course, talk about the core metrics that are being measured by Field Service organisations without touching upon the most significant issue of the modern industry today- the sheer breadth and depth of data.

In today's connected world, there is just simply so much data being created that we are very much in danger of being overwhelmed and consumed by it unless we are not careful. Paralysis by analysis can be a genuine issue that can stifle innovation. In a customer-orientated world, the ability to adapt quickly is becoming a crucial aspect of modern business.

Yet, at the same time, as is the increasingly hackneyed phrase 'data is the new gold'. The ability to be able to monitor, measure and then dissect each aspect of our operation - whether it be internally within our teams and operations or externally with regards to our customer interactions, can offer us the ability to leverage vast amounts of untapped insight into our businesses that can literally open up new revenue streams or at least maximise to the fullest potential those we already have in place.

So how do we tread the line between insanity and genius when it comes to getting the most out of our operational data?

Well, first of all, let us take a look at some of the headline metrics from the research when it comes to collecting operational asset data.

- 67% of field service companies are now using IoT to provide data from assets in the field.
- 72% of these companies are using data from connected assets to predict failure and schedule maintenance around this data
- 54% of these companies can interpret data from assets in the field when providing triage
- 23% of these companies factor this data into the way they analyse field service KPIs

Then if we compare this to how CSAT data collected by the field service operative themselves are adapted into KPI measurements:

- 90% of field service companies collect some element of CSAT data
- 87% of these companies expect engineers to collect this data directly from the customer while on site.
- 100% of these companies factor these results into their KPI performance



The findings outlined above would suggest that there is something of a disconnect between how field service companies at large are taking advantage of some sets of data compared to others. So why is this?

One suggestion here is that while for many organisations, the introduction of CSAT programs such as NPS has been explicitly designed to work within a program of KPIs. Indeed, this is their fundamental purpose, so it makes sense that this data would be automatically positioned where it can yield insight.

In addition to this, the means of collection is straightforward - it can be built into the engineer's on-site workflow alongside picking up a signature for job completion. Also, the prevalence of NPS, for example, is mostly down to the simplicity of its design which again lends itself to the straightforward interpretation of the data collected.

IoT data, on the other hand, is an entirely different ball game. In essence, as one respondent explained during a follow-up interview "CSAT data comes in neat little condensed parcels of insight that yield exactly what we need to know, IoT data, on the other hand, is a needle in a haystack time unless you in advance what it is your looking for."

To begin, the ability to collect vast sets of data not just at the asset level but also the component level can lead to simply too much data being presented to make any meaningful sense. It is crucial in this respect to understand what output we wish to measure - such as productivity or performance and then work back from there. To work in the other direction, from the ground up, when there is so much potential data to be analysed, would be a sure-fire way to get lost in the task.

As we've explored in this report, while the exact 'hows' and 'whys' of the KPIs field service companies are measuring may be changing, fundamentally, at the most fundamental level, the 'whats' largely remain the same.

Even amongst those organisations who are embracing new service-centric strategies such as servitization and outcome-based-solutions are utilising the same core existing KPIs that have always dominated amongst field service companies when it comes to tracking efficiency - First-time-fix rates and technician utilisation rates.

With this in mind, it is of course, far harder to work data from assets in the field into the KPIs we are using to measure field service performance. However, the fact is that when it comes to KPIs within field service, we must ask is intelligence from the assets essential in the way CSAT data is?

The answer is that it appears not, and this is a crucial point to note.

IoT data offers us the chance to provide our engineers with the critical data that allows them to hit the KPIs that matter - and these have remained constant and will likely do so for many more years underpinning our industry as it evolves.

The most significant aspect field service companies must put in place now is the ability to drive meaningful insight from that data in the field to harness it to help us hit the three critical pillars of CSAT, Productivity and Task Completion.

IoT, AI and Cloud computing are set to be critical tools in achieving this in the future.

## THE IMPORTANCE OF A SINGLE, REAL-TIME DATA SOURCE

by Richard Pratley, Managing Director, simPRO

At the heart of any field service operation, real-time reports are essential for making informed decisions.

Whilst reports showing what's happening in real-time allows for changes during the job, reports that are used for post-completion analysis allows for making improvements for the future.

Spotting trends, anomalies or problems early on is essential to drive the business forward. Data stored across a number of disparate systems can delay the processing of data for meaningful insights. The delay in collecting and analysing the data stored across these disparate systems significantly weakens the impact of any potential beneficial insights discovered.

Without an organised way to manage information, and ensuring its accuracy and consistency throughout a business, data silos form. These are multiple, standalone, sources of information within a single business, and they can lead to competing versions of the truth. And, where these form, a treacherous downfall

of unproductivity and inaccuracy follows.

If data isn't controlled, it can lead to inaccurate reporting, duplicate data entry, errors and time wasted verifying the data and its source. Data silos eat away at time, accuracy and even profits. Workflows are blocked, and individual staff members quickly become cornerstones to business operations.

It's essential to connect all areas of a business to gain real-time visibility into the performance of the business, from a bird's eye view to a detailed analysis by transaction is essential. Data updates in one department are immediately reflected in others - the data flows seamlessly and consequently allows for the standardisation of some processes, such as accounting, scheduling, and so on.

A single data source can not only improve data integrity but will also increase service levels leading to better response times and reduced costs. The resulting increase in jobs profit margins frees up the finance to re-invest in other revenue-generating activities.



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