# MIS 6313

## RFID REPAIR MANAGEMENT SYSTEM



**Rob Lindsay** 

Project Name	RFID Repair Management System		
Sponsor	Robert Lindsay		
Start Date	06/2021	<b>Completion Date</b>	12/2021

## Background to the proposed work

We recommend the local introduction of a cloud-based RFID enabled repair management system capable of enhancing our CRM while optimizing our SAP environment and pushing the organization towards our goal of operational excellence. The system will be allowed to update tasks within SAP, provide a means of delivering critical repair information to key users through a mobile application, and integrate with our CRM to enhance our customer value proposition.

There are currently at least four issues that generate a need for our recommendation:

- Physical Location Misplaced repairs or escalated repairs often consume valuable resources in the form of time spent looking for them and is often performed by management level employees with an expensive opportunity cost.
- Status Scope Escalated repairs are often brought to the attention of senior management who are not typically concerned with the happenings of SAP and want an answer in the now. It is often unclear who physically owns the repair within the facility at that moment in time.
- Workplace Inefficiencies Employees are currently reliant on computer access or supervisors to assign and transfer repairs systematically.
- Misallocation of Repairs Responsibility can sometimes be applied systematically to the incorrect watchmaker or technician. This not only effects production metrics, but comebacks as well.

Introducing our proposed RFID Management System will address the above issues, improve our support processes, and empower our employees throughout the repair process. From a management perspective, implementation will allow for improved resource allocation decisions, enable us to give our employees tailored feedback with more accurate information to pull from, and allow us to focus on the development of our employees to improve the operational excellence of the facility. Our employees will further benefit by enabling them to have better control over their workflow as they will have to rely on management less frequently for simple tasks such as the assignment and transferring of repair jobs.

Long term benefits for employees can be found in greater confidence in their performance reviews knowing the data that is collected is a more accurate representation of their work. RFID enablement can track when a repair is actually being worked on which can provide insightful feedback into which repairs a watchmaker seems to be taking longer on when compared to his or her peers.

The Client Support Center will find the addition of the RFID allows them to function with increased efficiencies and deliver information to clients faster and with more confidence which should result in a more positive client experience. They will quickly be able to physically track down a repair and talk to the key stakeholders without having to run around the facility to see who actually has the repair. As we collect more data, we can use analytics to allow for the RFID Management System to provide them with more client relevant information such as estimated repair completion time based on current inventories within the repair stream.

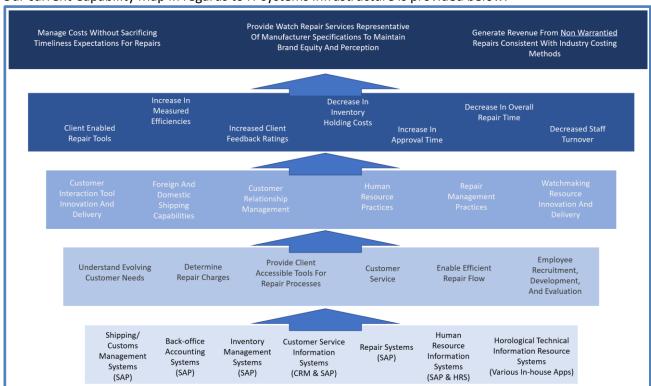
Additionally, through a mobile app, every member of management can see where a repair is in the flow. You will no longer need SAP access to see where an escalated repair is in the flow which provides you with flexibility to handle sensitive situations from wherever you are in the world. This provides a much higher level of

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customer experience management, especially with the customers that we are in jeopardy of losing as future clients due to an escalated repair occurrence.

Our current Capability Map in regards to IT systems infrastructure is provided below:



We have made many improvements to various workflows and processes over the last few years that have enabled us to increase many of our KPI's. With the low hanging fruit picked, finding opportunities to continue to increase our metrics will likely be found in the analyzation of our data, a source of improvement which is currently underutilized by SAP. With our current SAP setup, we fail to capture a true snapshot of the workstations and queues. Without a better system, we will not be able to identify the opportunities we have to make the remaining impacts on our day-to-day operations and overall satisfaction of our clients. Improving our IT system capabilities can allow us to achieve our organizational objectives without forcing us to completely rethink the drivers at the base of the capability map. As the RFID repair management system feeds into the Customer Service Information Systems, the Repair Management Systems, and indirectly assists our Human Resource Information Systems, there is an immediate return on investment through increased operational excellence and our clients are more likely to become repeat purchasers when expectations are met.

Through our recommendation, a cloud-based RFID Repair Management System will allow for constant location tracking of both a repair box and its corresponding pouch. Automation of task assignment for location and employee will be interfaced with SAP. Our analytics team will have the capability of building reports that will serve management to provide better feedback to employees and information that will enable our client support team to provide a more intimate relationship with clients.

Declining this recommendation will force all stakeholders to continue to make decisions based on incomplete information. We will continue to struggle to identify the true opportunities we have to improve the organization and valuable resources will be misallocated or we will waste valuable time performing tasks that the recommended system could prevent.

### **Objectives**

Impacts of the RFID Repair Management System will aim to Enhance Operational Excellence through Automation, Control, Empowerment and Interactions while increasing Customer Intimacy through the Client Support Center.

The following measurable results are expected after the implementation of the system:

- Manual updating of repair tasks in SAP should occur less than 5% of the time.
- Initially, we should see an increase in the lead time for most of the buffer tasks during the
  introduction of new systematic procedures. As our data will be better over time, we can flex
  resources more appropriately to address bottlenecks which will eventually lead to a lead time
  reduction in these locations.
- In task lead times will trend much closer to the actual STO assigned to the repair as repairs will not be assigned to the technician until they are ready to work on the repair
- Employee STO achievement will increase as they receive more accurate feedback on the trends for specific models and training needs can be identified.
- Client escalation response times will decrease as locating the repair will be faster and the information needed to respond to the customer will flow quicker.
- Client satisfaction in regard to "Competence Level" and "Time of Turnaround" will increase.
- The number of discrepancies that arise during inventory will be reduced and reconciliation will be measurable by minutes instead of hours or days.
- Throughput of repairs will increase.

These objectives can be used to measure the completeness and success of the project. Currently established dashboards can be used or integrated into the system but should be analyzed by the Project Manager to determine if there is an added benefit to having them integrated into the system. With increased capabilities, new dashboards and reports can be customized to fit the needs of the organization. If the plan is put in place, specific metrics should be attached to each objective to ensure managers are moving towards a goal. These should be developed by the Project Manager and key stakeholders to make sure that they are fair yet challenging metrics that ultimately move the facility towards exceeding its KPIs.

#### Scope

The RFID Repair Management System will only be installed at the Richemont Technical Center. Boutique, Canadian platform, and Miami platform rollouts will not be considered to be a part of this project in its submitted form in order to limit the learning environment and challenges that may arise during implementation. After a 6-month trial period within the RTC, sufficient data should exist to measure the effectiveness of the Project and consideration should be made to roll out the functionality throughout the network through a separate project initiative as the stakeholders throughout the network (boutiques, satellite centers) will vary considerably from what we have here at the Technical Center.

The dedicated Facility Project Manager will be responsible for the project and will team with our Data Analytics Manager, our local IT Manager, and Department Managers in order to set clear expectations of what will be required for each department and to convey any need for information that is necessary for project installation.

RFID readers will be positioned throughout the secured side of the facility where repairs can be found. For some work areas, individual readers will be placed on each individual workstation, and some workstations may require multiple readers as they may be responsible for multiple tasks. For other locations such as buffer queues, one reader for the area will likely be sufficient. A joint team of IT, department managers, and area supervisors will be selected to perform an analysis to determine required demand and recommended positioning of readers. It is recommended that conversations with people who perform each task take place to ensure that functionality is maximized.

Our corporate IT team will be required to procure or create a Repair Management System that has the capability of interacting with our established SAP system. Functionality of the Repair Management System should include real time tracking and an interface that allows for various reports. Initial reporting should include information that provides knowledge and insight into repair flow and technician performance as generated by the RFID Repair Management Systems ability to update the task flow.

Interface should allow for our recently established local Data Analytics Team to generate new variations of reports in the future when local needs determine it. An emphasis on a system that requires minimal external support for future reporting needs is ideal.

Once installed, employees will be required to attend a training session to understand the new functionality of the system and clear rules will be developed and laid out for each department to make implementation at the user level as simple as possible.

The system is not to be designed with an intention to replace SAP and the functionality should be limited to the scope of repair process within the Richemont Technical Center. Any proposed improvements or additions to the Project outside of the defined scope contained within this document must be presented by the Facility Project Manager to the Facility Director before they can be allowed to be added to the scope of the project and the document should be revised to indicate how the project changed. Any other business functions associated with a repair should be considered outside the scope of the Repair Management System (e.g., Customs Reporting, Shipping Information, Description of parts on order) and separate projects independent of the Repair Management System should be developed if RFID technology is required for implementation. Finally, the Facility Project Manager will be responsible for clearly laying out the requirements to the corporate IT team after fully defining the requirements at the local level.

#### **Deliverables**

The following are the expected deliverables for the project:

- A Repair Management System that can interact with both the SAP and CRM systems and provide key
  users with the necessary reporting functionality.
- RFID readers, Boxes, and Pouches are to be purchased or provide a solution to use current boxes and pouches.
- A Mobile Application developed to access repair information by designated employees.

**Timeline**: An initial timeline of 6 months is set for the delivery of the project. This is merely an initial guideline and further evaluation of the project should determine the validity of this estimate early in the process with any adjustments in timeliness voiced to the critical stakeholders.

Proper vetting and exploratory actions should take place to ensure that SAP does not currently provide the forms of the functionality expressed within this proposal. Regardless, multiple vendors should be assessed with standard organizational procedures adhered to when forecasting project costs and timelines. All deliverables should be done within the Project Budget and within the determined Project Schedule timeline to be specified at a later date. If delays or increased expenses appear to be on the horizon, the Project Manager should be informed who will then immediately notify the Facility Director to ensure proper awareness and decision making.

## **IT Value Pathway**

The Repair Management System should be considered as a Business Platform Enhancement. The RFID technology will automate operations, eliminate managerial requirements for simple tasks, improve efficiency and effectiveness of the repair flow, and provide insight into physical location within the facility.

Key stakeholders will be able to quickly identify the status and location of the repair through the mobile app which will allow them to make informed decisions and provide feedback for the Client Support Center and senior level management.

The reports that are generated from the data that are collected overtime will increase our technical strengths by identifying shortcomings for individual watchmakers. Tailored training, direct feedback, and corrective measures can be taken driven off of more accurate data than we have ever had in the past. As a result, the overall quality and timeliness of each repair should improve over time.

Direct interaction with the client through the Client Support Center will be enhanced and client satisfaction scores should increase as a result of quicker follow up phone calls that help de-escalate repairs in which clients are not satisfied with the current flow.

To ensure that the project is contributing to the value pathway, the following metrics can be monitored with timelines for expected improvement achievement designated in parenthesis:

- Client Response Survey Ratings (Mid Range)
- Repair Lead Time Reductions (Mid Range)
- In Task Lead Time Reductions (Immediate)
- Productivity should Increase (Immediate to Long Term)
- Inventory Reconciliation Times (Mid Range)

#### **IT Value Pathway**

Although this project proposal is designed for local implementation, a successful endeavor will allow for the international IT team to analyze it and apply it at a global scale as a majority of our platforms function off of SAP and follow the same systematic flow typically mimic similar concepts in their physical setup. The risk of IT investing heavily on a global scale is greatly reduced if we are able to prove that it provides sufficient cost benefits. If successful, global implementation and the benefits received strengthen the internal and external value that the project offers.

## **Business benefits**

As our primary business function is founded on the repair of both warrantied and non-warrantied time pieces, one of the most important aspects of our local business model is our value proposition. Our clients, established representatives of our brand through ownership of our timepieces, expect a certain level of service when they send a timepiece in. Most of these repairs do not require an escalated level of customized attention but rather a reasonable turnaround time at a cost that is justifiable for the quality of product that they have submitted for repair. In this effort, we aim to constantly improve our operational excellence. Implementation of the RFID Repair Management System would provide for automation of work assignment allowing for increased productivity from high traffic workstations. As a management team, we will have a more accurate understanding of our workflow, a better indication of where our true bottlenecks are, and be able to quickly react by making informed decisions providing us with a deeper level of interaction with the system and more control over the flow of each repair. Data captured through the RFID Management system can be used for analytics to empower management and employees to make better decisions as it can better identify where deficiencies in processes, employee training, or organizational structure may lie.

For those customers who require an escalated level of service for a variety of reasons, our Client Support Center can use the RFID Repair Management System to provide an increased level of customer intimacy. Knowing the true location, how long it has been in that location, and being able to know exactly who to talk to will provide our associates in the call center an increased level of control in their interactions with clients. These employees will feel more empowered to provide clients with information that they believe is accurate and the system can evolve to use analytics to provide them with more information over time. They will be able to provide more consistent experiences and customers we will escalate fewer complaints. In an age where social media posts have an impact on consumer behavior, the benefits achieved by reducing dissatisfied clients typically outweigh the costs associated with the efforts to make clients happy. In turn, we should see an increase in customer retention and sales, although this will be harder to capture through metrics as we do not currently track the realization of client purchasing decisions based on after sales service.

## Assumptions

This proposal makes the assumptions that we will continue to utilize SAP with no major changes to interaction and functionality for the foreseeable future. Additionally, it assumes that there are currently no similar initiatives that have already been enacted at any of the other repair facilities around the world where best practices may have already been developed and economies of scale would be encouraged.

#### **Constraints**

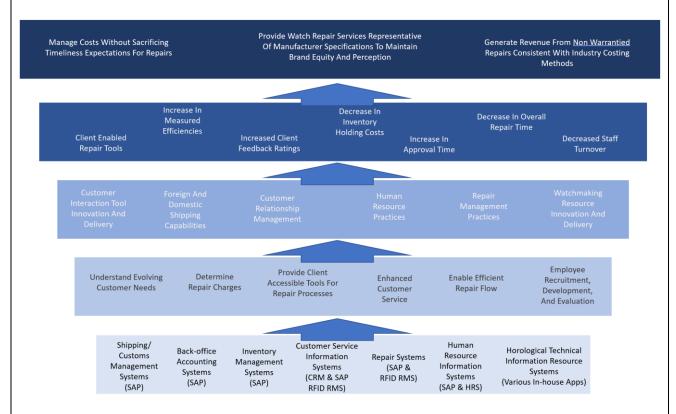
RFID readers, boxes and pouches must be obtainable to fit our facility needs. Minimal restructuring of workspaces should be given preference unless the costs are prohibitive. A cost analysis of the RFID readers, boxes, and pouches should be performed by the Project Manager to determine if the system will fit into the budget requirements of the platform.

The Data Analytics team must have the capability to ensure that the more accurate data being provided through the new system is being used regularly and with priority. This includes knowledge and capacity capabilities.

If the project is outsourced, consideration must be given to determine if the partner will have the capability of global scaling or will we need to find another partner with international capabilities? Cost considerations should be made for the potential ability to scale at a future date, even though scaling would be considered as a separate project.

#### **Business-IT Alignment**

With the introduction of RFID technology, new reporting features, and a mobile app, we will have improved access to impactful data that will enable us to achieve the business objectives required from an after sales service center. Through improved data and tools, our communication with our end clients will improve, communication amongst key stakeholders will improve, and communication with our employees will be more effective and backed by data analytics that will drive change.



As you can see from the capability map above, the introduction of the RFID Repair Management System does not dramatically change our business model as it merely enhances the Customer Service Information System and our current Repair System usage of SAP. As such, no major business capabilities need to be introduced

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beyond the training and utilization of the new tools and reports. However, as we have identified previously, the internal and external benefits are numerous without having to redefine who we are as an organization.

Internally, cost reductions through increased efficiencies should be realized. Externally, positive client relationships in the after sales experience increase the chances of future purchases, lowering client acquisition costs and generating revenue towards a healthy bottom line.

#### **Risks**

If the project is approved, a risk log should be developed by the Project Manager in which potential risks can be identified, tracked, and appropriate actions to counter the risk can be detailed.

- If we decide to no longer use SAP in the near immediate future, it may require a significant reinvestment into redesigning or creating a new Repair Management System capable of interacting with the replacement platform.
- If there are issues with the functionality of the readers, boxes, or pouches, or with the Repair Management System itself, we will be working with contaminated data or create a situation where we have employees who lack the ability to overcome a nonfunctioning system which would compound the problem.
- The durability of the sourced boxes and pouches may require an additional investment and should be considered during the cost analysis as continuous replacement could consume portions of future budgeting.
- The Data Analytics team must have multiple members on the team capable of performing the needs of the facility in regard to the Repair Management System. We cannot afford to be in a position where if one person leaves, we no longer have an understanding of the foundations of the system.
- With the addition of new systems and mobile applications, data security should be at the forefront
  of development and usage. Only client information relevant to the Repair Management System
  should be integrated into the functionality of the system and care must be taken to keep all systems
  protected from potential attacks.

#### Other areas of business affected

Sales: As we provide repair services to clients, internal boutiques and external 3<sup>rd</sup> party accounts, this will have an impact on how the brand is perceived by purchasers of our brand as well as those in the retail marketplace who sell our product lines. The improved lead times, quality of repairs resulting from catered training, and increased client satisfaction through more intimate interactions should have a positive impact on sales.

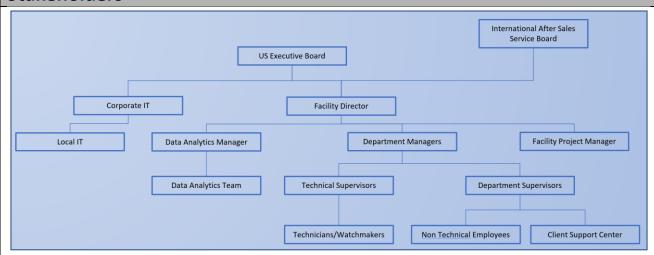
Employee Retention: Our employees will feel empowered as they will have more control over the repair flow and receive feedback representative of their true output. It will allow for better training and improved skills which will then offer them more opportunities. It will also identify which repairs they are most successful with and potentially allow them and the facility to distribute the work in a manner where that best fits both the technician and the facility. This should lead to a more enjoyable work experience and increased employee retention.

#### **Major dependencies**

Currently, there are no outstanding projects that would be relevant to the enactment of this initiative. One major dependency would be on the integration of the CRM and SAP with the Repair Management System going forward. If either of those systems changes over time, functionality of the Repair Management System may be impaired greatly reducing the scope and efficacy of the system.

Provided the local budget analysis is cleared, a cost analysis at the corporate level will need to take place to analyze the cost of the Repair Management System. ROI may have to include goodwill that is generated through positive client experience. A negative valuation will potentially keep the project from moving forward.

#### **Stakeholders**



Facility Project Manager - Data Collector, Decision Maker, Presenter, Orchestrator

Facility Director – Decision Maker, Presenter (for funding)

US Executive Board – Final Decision Makers, Must be kept informed

International After Sales Service Board - Potential resource and guidance, Future Decision Maker

Corporate IT – Will provide resources and make decision on system

Local IT – Will provide input, Installation Services, Product Support after Installation

Data Analytics Manager – Will gather information and provide input

Data Analytics Team – Will provide information, Key contributor after installation

Department Managers - Provide resources, Decision makers, Must be kept informed

Department Supervisors – Provide resources, provide input, significant utilization after installation

Technicians/Watchmakers – Must understand how system works at basic level, provide input, system will improve efficiencies and feedback

Non Technical Employees - Must understand how system works at basic level, provide input, system will improve efficiencies

Client Support Center – Will provide input, significant utilization after installation

#### Part B: Project Implementation

1. Please explain how you would determine if this IT investment was successful. What measures would you use? Be sure to provide a clear justification or rationale for your answer.

Answer: The following metrics can be used to assess the effectiveness of the investment in our project with an indication of when the results should be expected:

Client Response Survey Ratings (Mid-Range)
Repair Lead Time Reductions (Mid-Range)
In Task Lead Time Reductions (Immediate)
Productivity should Increase (Immediate to Long-Term)
Inventory Reconciliation Times (Mid-Range)

#### **IMMEDIATE IMPROVEMENTS:**

Immediate improvement to Inventory Reconciliation once the RFID technology is in place should be expected. Unscanned repairs can be physically located through the use of the locater technology and any improperly scanned repairs can be verified as well. Department owners can be given a report of anomalies and reconciliation can take place in a matter of minutes.

Immediate Reductions to In Task Lead Times should be clearly evident once familiarity with the new system takes place. Repairs will be able to remain in the Queue until technicians and watchmakers are ready to work on them as opposed to supervisors over allocating to ensure that the technicians and watchmakers do not run out of work. The learning curve should be limited to a few days for scanning capabilities while CRM interactions may take a few weeks before efficiency begins to set in.

#### **MID-RANGE IMPROVEMENTS:**

Client Response Survey Ratings: We should expect to see an improvement in scores over time. Initial results may not show a large impact, but as the facility and our Client Support Center team members become familiar with the system, the level of service provided to our clients should increase.

Inventory Reconciliation Times: Depending on when it occurs, the first inventory may not show a significant reduction in reconciliation. The data analytics team will likely need to be involved to fine tune a system that identifies anomalies and generates a report that clearly designates responsibility for reconciliation. However, significant gains should be seen after the first inventory with smaller gains after in later inventories as the system evolves and stakeholders become more efficient with the new reconciliation approach.

#### **IMMEDIATE TO LONG-TERM IMPROVEMENTS:**

Productivity: Some increases in productivity should be recognized immediately, especially at the technician level as it will simplify the movement of repairs. For watchmakers (and to some extent, technicians) long term gains in productivity should be achieved as the data is gathered and managers are able to apply insights into performance, training needs are identified, and corrective actions occur.

2. Please explain how emerging issues in IT play a role (or could play a role) in the real-world managerial context of your selected organization. What are these issues (either managerial or technical issues) and how are these critical in understanding how to successfully implement this IT investment?

From my perspective, the biggest issue that we faced within our facility was the reluctance to capitalize on the data that we had because it might force us to change our processes. In 2015, I began generating my own reports in SAP to provide me with a snapshot of what was in the workflow and how much time remained on repairs. Historically, as technical supervisors, we relied on date stickers to provide an indication of when a

repair was due. However, I began to realize very early on that these date stickers that were on the outside of the repair boxes were not accurate and did not reflect the true lead time for a variety of reasons. This was information that was kept very "hush hush" by members of management as they didn't want hourly employees to know that the system we used was not the system that drove how we were being measured as a facility. In their opinion, it was not affecting their productivity, so they shouldn't know. So, when I was promoted and I uncovered this issue on my own, I was quite shocked. When I asked for a more accurate way of allocating and organizing repairs, they said no system existed. So, I had no choice but to create my own.

I began looking into the various features that SAP provided to see which reports and variables would provide the insight that I needed to come up with a more accurate due date. After a weekend or two, I was able to develop a system that predicted the true lead time due date within a half of a day, far more accurate than the sticker system that we were currently using that was days or weeks off in one direction or the other. I immediately began to apply this report and our results improved substantially. As I was in charge of approximately 50% of the repair volume in the facility, our 15% increase enabled us to go from the mid 20s in facility lead time achievement globally to the top 10.

When senior management inquired as to what I was doing, it was met with a "that's not your job" reaction. Instead of embracing my proven technique, they insisted that the system should work on its own if we could merely get the watchmakers and technicians to increase their productivity. I would need to write another paper to dive deeper into that discussion, but let's leave it at this: I continued to use my technique and the executives of the brands that I managed were extremely satisfied with the results that I got while my internal management was frustrated that I wasn't trusting the system.

After maintaining top results within the facility for two years, they asked me to take over a brand that was functioning around a 40% lead time achievement rate. Within two months I had them functioning at 80% of the target and it only took me about another month or two to have them to the point where they were the highest performing team in the facility. At this point, senior management in the facility had to recognize that my system worked.

So they sent their "data analytics" expert to me, who was essentially a project manager with exceptional SAP and Excel knowledge, and he looked at what I was doing and my thought processes. From there, he created a system that would eliminate the need for the date stickers using many of the processes I had developed but with a greater depth of insight and access to information that allowed for an even more accurate model.

So now we have this wonderful tool that allows us to identify repairs that are in danger of making their dates. My immediate thought is that we can easily introduce this tool to all of the relevant departments within the facility: Polishing, Materials Matching, Case Preparation, Ready to Repair, In Repair, Quality Control, and Shipping. This would allow for the teams to expedite processing of the repairs at each stop in the flow. In fact, a visual flag could be attached to the repair once it was identified as being a repair in danger of making its date (we had already created such a flag and were using this within the technical repair department). I had identified that on average we had about 20 watches a day that would either make or miss their lead time based on when they made it through SAP systematically. Had most of these been expedited we would have likely gained at least another 3-5% in lead time achievement which would have easily put us at the top of the global podium. We had figured out how to work the data in an insightful and impactful way. We had the means to act on it. What we lacked was senior leadership buy in. They were insistent that it was not part of the designed system and that we were asking people to do things beyond the scope of their job. As lead time achievement was the single most important factor for supervisor's reviews and one of the most important factors in client satisfaction, it was hard to understand why senior leadership would not allow us to make modifications that were supported by data, drove internal success metrics, and created happier clients. Everything about it added to the value chain but we lacked internal goal congruency.

As I look back at that experience, and I relate it to this project proposal, I realize that there are probably elements of their past reactions that limited the scope of what I feel like this project could truly do. In some ways that is probably a good thing because it helps limit the objectives and focus in on a limited number of

goals. But I do feel that submitting a project proposal like this would first be met with that same "this isn't your job" mentality that seems to permeate senior management's perspective. I think the only way that this would be received positively would be if I teamed with someone outside of the technical department and head them present it. The most likely candidate to serve as a champion of my cause would be the Project Manager as his position is very much in line with the "this is what we pay you for" mentality.

With this story as an example, I believe that it is safe to say that Richemont needs to overcome their preconceived notions of who is capable of crafting project ideas that stretch beyond their typical work scope. The merit of the project should not lie in who creates or presents it but rather on the quality and improvements that the project itself generates. If analytics are to be capitalized on, they should be tailored to those who use them. In that sense, there may not be stronger candidates to push digital initiatives than the employees who are willing to step out of their roles with boundary pushing ideas.

I think that my experience with my former employer was valuable because it showed me how an environment that fails to foster and encourage organic solutions will have employees who are jaded and eventually leave for other opportunities. As I continue to move up the corporate ladder, this will hopefully be something that stays with me so that when other people approach me with ideas in which they thought beyond the scope of their job, I will welcome the idea and judge it one the value that it provides the company and the clients we serve.

## 3. Please explain how your IT investment supports the organization in making business decisions. How does this IT investment support the strategic role that information technology (IT) plays in the organization to make business decisions?

Answer: The Repair Management System utilizes RFID technology to gain insight into how repairs are truly moving through the flow. With more detailed data, we can identify which repairs are taking longer or are perhaps going to quickly. For example, let's say you have a polisher who receives 200 minutes to polish a particular model. All of the other polishers take about 180 to 220 minutes on average to polish this model. But this particular polisher routinely takes 120 minutes to polish the model based on historical RFID tracking of repairs containing this model. As a supervisor, if I was provided a report that showed anomalies such as this, I could take the time to see why that polisher was so much faster. The most likely reason is that he is not doing everything that is asked of him for this model. But there is a chance that we have an opportunity to redefine the process for that model if his steps are fundamentally sound and can be rolled out through the entire polishing department. So, we either take corrective action to improve quality or we share knowledge to increase efficiencies and lower costs. These are insights that would have been hard to gather had we not had an RFID system that allowed for more accurate time analysis.

The biggest gain from the supervisor's perspective is that we no longer have to be consumed by work allocation. It will not eliminate the task completely as a human perspective will likely still be needed to have an understanding of what is in the queue and if you want a particular watchmaker to work on a particular repair, but it certainly frees us up to focus on shadowing, training, providing feedback, working on branded initiatives, etc.

From an IT Strategy perspective, it is in line with the global initiative to enable our employees to have a more digitalized interaction with the repairs. Recently, we developed a decision tree within SAP to drive the diagnostic process. We rolled out iPads to all of the benches with custom applications that allowed for technical documentation and walkthroughs to be accessed by everyone at their bench instead of on shared computers away from their bench. At the local level, we recently invested into our client support center to modernize the call and email management. The US was beginning to take on digital projects that served as pilots for global initiatives. Introducing RFID technology and developing the capabilities that this Repair Management System seems to fall in line with where the facility is trending. It is certainly a project that if proven successful, has the capability of being rolled out on a larger scale as most of our platforms around the world follow a similar workflow and employ a similar setup of machinery, systems, and physical layout.

# 4. What form would your role or involvement take in working with this organization to implement this IT investment? Could you play a different role with this organization? What do they want or need, and might that require you to take on a new role or adjust the scope of your engagement with the organization?

I absolutely feel that I could be an active participant instrumental in a role outside of "Technical Supervisor" position. The organization needs more watchmakers in decision making positions within the after sales service portion of the business. Globally, there is only one watchmaker that I know of who works in the after sales service realm with any meaningful responsibility. This is very different from the maisons themselves, who are not afraid to promote watchmakers to roles outside of their craft. One of the struggles that we had as watchmakers was that the decision makers had no idea what a watchmaker had to deal with during the course of a repair. To us, it seemed that they felt like all we had to do was dismantle, clean, replace a few parts, and then put it back together and it should run fine. If it were that easy, they wouldn't have needed to pay me as much as they did. Having watchmakers advance to positions of authority creates trust amongst the watchmakers at the bench that decisions are being made that address the concerns that they may have.

To leverage that way of thinking, having a watchmaker be an instrumental lead within the facility for the role out of the project would be huge. It would aid to encourage employees to bring their ideas to the table knowing that they have a chance to have them acted upon and shift a mentality of, "well it doesn't do any good to share ideas because it will never happen anyways." Within the context of this project and the assumption that I am still a technical supervisor at the facility, I do not think that I should be the overall lead as we specifically created a new Project Manager position to perform the described task. However, I could continue to be a key contributor to the development of the project after the submittal. It would enable me to learn new skills tied into the vetting and budgeting process and give me a better understanding of the factors that came into play once we roll the project out to the facility. My skill sets would apply well to the training of the facility on the new system, both from a technical viewpoint and a customer service viewpoint as I have significant store manager experience within the retail jewelry industry prior to becoming a watchmaker.

The challenge here would be to break down the "that's not your job" mentality. In the past, I had proposed to allow me to be in charge of repair management, a role that would solely focus on increasing lead time achievement through out the facility. Their response made me feel as if I had been pigeonholed into one role and that would never change as it would not be appropriate for a watchmaker of my skill level who had the soft skills to train other watchmakers to leave the bench to perform other roles. So, again, I think I would need to convince the Project Manager to allow me to take on the role that I envision in being able to implement this project throughout the facility. If I could have him champion my cause, I think that the chances of being incorporated into the decision-making process would be increased and also enable me to serve as the leader who uses coaching skills to get the buy in of the employees during the roll out.