

All of the following cases adhere to this format:

1. **Case x:** The xth case.
2. **GPT’s Solutions:** This section presents solutions generated by GPT using APAPA for Case x. It’s important to note that this is the initial version of APAPA from June, so there may be minor differences compared to the final version released in August.
3. **Classification of GPT’s Solutions:** This section displays the classification of the solution produced by GPT in the previous step. Manual adjustments have been made where necessary. For instance, in Case 1, *4.6.1 Task Automation*, does not provide a classification reason, whereas *4.2 Extra Resources* offers a detailed classification rationale. This is because *4.6.1 Task Automation* underwent manual corrections, and therefore the incorrect classification explanation provided by GPT was removed.
4. **Successful Redesign Patterns:** *This section showcases successful redesign patterns for Case x, sourced from the reviewed appendix¹ of [1].*
5. **If “GPT’s Solutions” contains “Successful Redesign Patterns”:** This section displays whether “GPT’s Solutions” includes at least one from the “Redesign Patterns”. If the solution provided by GPT corresponds in meaning to any pattern from the “Successful Redesign Patterns”, it will be classified as a “yes”. For example, in Case 63, GPT produced the solution “*Specialist and Generalist: Training and Development and Employee Engagement can be related to adjusting the ratio of specialists and generalists through training*”, and since “Successful Redesign Patterns” contains Staff training, it’s judged as a “yes”.

At last, The result of *If “GPT’s Solutions” contains “Successful Redesign Patterns”* in Case 1, 17, 28, 33, 41, 51, 62 are judged as “no”.

References

- [1] K Lashkevich. Business process improvement opportunities: a framework to support business process redesign. Master’s thesis, University of Tartu, 2020.

¹<https://bit.ly/35PA0Pn>

Case 1

In a healthcare recovery ward process, the surgery ward makes calls to check if the care unit has a room available and a patient can be transported to them. On average, it is necessary to call at least four times from the surgery ward to the care unit until there is a free place and the time of the patient's transportation can be planned. Calling back and forth several times are non-value-added activities.

GPT's Solutions

- 1 Implement a real-time bed management system which can provide information on room availability instantly, reducing the need for numerous calls.
- 2 Establish a process where the care unit automatically notifies the surgery ward when a room becomes available.
- 3 Increase the number of rooms in the care unit if possible, or optimize the usage of current rooms to minimize waiting time.
- 4 Implement a scheduling system to plan patients' transportation in advance, based on predicted room availability.
- 5 Use predictive models for patient discharge, to better forecast when a bed will be available.

Classification of GPT's Solutions

For the redesign options proposed in the Output Redesign, the following heuristics were used:

1. ****4.6.1 Task Automation****:
2. ****4.6.1 Task Automation****:
3. ****4.2 Extra Resources****: Increasing the number of rooms or optimizing the usage of current rooms involves adding more resources to improve capacity and efficiency.
4. ****4.6.1 Integral Technology****
5. ****4.6.1 Integral Technology****

Successful Redesign Patterns

Task elimination

If "GPT's Solutions" contains "Successful Redesign Patterns"

no

Case 2

Activities of collecting of identical information. On the faculty, there were two separate timetable databases maintained the same data, each of them required the corresponding data entries and up-dates. Data entries and updates are duplicate activities.

GPT's Solutions

1. Merge the two databases into a single centralized database. This reduces duplication of efforts and ensures consistency of data.
2. Implement an automation tool to update entries. Once data is entered into the system, it gets updated in the database in real time.
3. Train staff on the new database system and data entry process to ensure they understand how to input and update information efficiently and effectively.
4. Implement a data validation system to reduce errors and ensure that data integrity is maintained.
5. Regularly review and clean the database to ensure that it contains the most up-to-date and accurate information.
6. In case the two databases are maintained by different departments, establish a data sharing protocol to ensure that both departments have access to the latest data.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****4.1.3 Centralization****:
2. ****4.6.1 Task Automation****: Implementing an automation tool to update entries is an example of using technology to perform tasks that were previously done manually.
3. ****4.2.1.2 Generalist****: Training staff on the new database system and data entry process increases the ratio of generalists through training, adding flexibility to the business process.
4. ****4.5.1 Control Addition****: Implementing a data validation system integrates checks into the business process to ensure the completeness and correctness of incoming materials.

5. **8.3 Continuous Improvement**: Regularly reviewing and cleaning the database to ensure that it contains the most up-to-date and accurate information involves using a standardized interface to streamline communications and processes.

6. **8.6 Cross-functional Collaboration**: Establishing a data sharing protocol minimizes the number of departments involved in a business process, reducing the time spent coordinating tasks and responsibilities among a large number of people or departments.

Successful Redesign Patterns

Task elimination

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 3

In a chocolate manufacturing process, several unnecessary worker movements can be observed such as Transfer to the production line with an operator, Shift supervisor back to the office. These activities do not add value from the perspective of the customer.

GPT's Solutions

1. Implement automation in the transfer process to the production line. This can reduce unnecessary movement of the operators and increase efficiency.
2. Reconsider the physical layout of the manufacturing plant to minimize non-value adding movements. Try to position frequently co-operating units close to each other.
3. Install mobile devices or workstations at key points on the production line, reducing the need for the shift supervisor to return to the office frequently. Information should be accessible and can be updated from the production floor itself.
4. Train employees to multi-task and handle different roles. This would reduce the need for movement between different sections of the manufacturing process.
5. Apply Lean principles, such as Value Stream Mapping, to identify and eliminate waste activities that do not add value from a customer perspective.
6. Use wearable communication devices for employees, so they can communicate effectively without needing to physically move to different locations.
7. Introduce automated guided vehicles (AGVs) for transporting materials on the production floor, reducing the need for manual labor.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **4.6.1 Task Automation**: Implementing automation in the transfer process to the production line is an example of using technology to perform tasks that were previously done manually.
2. **1.3 Integration**:

3. **4.6.2 Integral Technology**:

4. **4.2.1.2 Generalist**: Training employees to multi-task and handle different roles increases the ratio of generalists through training, adding flexibility to the business process.

5. **2.2 Task Elimination**: Applying Lean principles such as Value Stream Mapping to identify and eliminate waste activities is a strategy that involves removing unnecessary tasks from a business process.

6. **4.6.2 Integral Technology**: Using wearable communication devices for employees involves applying new technology to overcome physical constraints, potentially resulting in efficiency gains.

7. **4.6.1 Task Automation** : Introducing automated guided vehicles (AGVs) for transporting materials on the production floor is another example of using technology to perform tasks that were previously done manually.

Successful Redesign Patterns

Task elimination

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 4

In a help desk service process, after the request is received, the operator registers the request in the system. The activity "Register request" does not add value to the customer but is required by the process standards and is necessary for further request processing

GPT's Solutions

1. Implement self-service portals where customers can register their own requests. This frees up operators for more complex tasks and reduces wait times for customers.
2. Automate the registration process through a system that can identify and register incoming requests. Machine learning or AI-based systems can be used to categorize and assign requests.
3. Use a chatbot or AI interface to interact with the customer and register the request. The chatbot can ask a series of questions to gather the necessary data and register the request.
4. Incorporate the registration process into the request submission process, so that the request is automatically registered when it is submitted.
5. Review process standards to find opportunities to streamline or automate steps that do not add value to the customer.
6. Train operators in efficient registration processes to reduce the time taken in this step.
7. Ensure that the necessary information for request processing is collected during the initial customer contact, reducing the need for additional information gathering during the registration process.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****1.1 Control Relocation****: Implementing self-service portals where customers can register their own requests shifts checks and reconciliation operations from the business to the customer side.
2. ****4.6.1 Task Automation****: Automating the registration process through a system that can identify and register incoming requests is an example of using technology to perform tasks that were

previously done manually.

3. **4.6.2 Integral Technology**: Using a chatbot or AI interface to interact with the customer and register the request involves applying new technology to overcome physical constraints, potentially resulting in efficiency gains.

4. **1.1 Control Relocation**:

5. **2.2 Task Elimination**: Reviewing process standards to find opportunities to streamline or automate steps that do not add value to the customer involves removing unnecessary tasks from a business process.

6. **4.2.1.2 Generalist**: Training operators in efficient registration processes increases the ratio of generalists through training, adding flexibility to the business process.

7. **4.5.1 Control addition**:

Successful Redesign Patterns

Task automation, Parallelism

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 5

Review activity if the average number of mistakes found by this review is low.

GPT's Solutions

1. Implement automated review systems, such as error detection algorithms or AI, that can swiftly identify and correct common mistakes, reducing the need for manual review.
2. Re-evaluate the review activity's necessity. If the error rate is consistently low, it might be more efficient to conduct reviews on a random sampling basis or at regular intervals rather than reviewing every case.
3. Provide better training and resources for those producing the work, so that the quality is higher at the initial stage, reducing the necessity for extensive reviews.
4. Reward employees for low error rates to encourage careful work that requires less review.
5. Set up a peer-review system where employees review each other's work. This can increase the skill level across the team and may catch different types of errors.
6. Develop a system that flags only certain types of high-risk or complex tasks for review, and allows low-risk tasks to pass through without a review. This saves time while still maintaining quality controls for critical tasks.
7. Incorporate machine learning algorithms that can learn from the mistakes identified in past reviews, and automatically apply these lessons to future tasks, reducing the need for human review.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****4.6.1 Task Automation****: Implementing automated review systems, such as error detection algorithms or AI, is an example of using technology to perform tasks that were previously done manually.
2. ****2.2 Task elimination****:
3. ****4.2.1.1 Specialist****: Providing better training and resources for those producing the work

involves adjusting the ratio of specialists through training or hiring. Specialists are likely to develop a routine more quickly and have deeper knowledge, leading to quicker work and higher quality.

4. **8.4 Advocacy Management**:

5. **1.3 Integration**:

6. **2.2 Task elimination**

7. **4.6.2 Integral Technology**: Incorporating machine learning algorithms that can learn from the mistakes identified in past reviews involves applying new technology to overcome physical constraints, potentially resulting in efficiency gains.

Successful Redesign Patterns

Task elimination

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 6

Manual surgery instrument counting after the surgery is completed.

GPT's Solutions

1. Implement Radio-Frequency Identification (RFID) technology or similar technologies to track the instruments. Each instrument can be tagged and scanned before and after surgery, automatically tallying the count.
2. Use a barcode system where each surgical instrument has a unique barcode that can be scanned before and after surgery.
3. Use automated instrument counters, which can be a digital device where nurses can record each instrument as it is used.
4. Apply computer vision technology to automatically count and identify instruments via a camera system.
5. Provide structured storage trays for surgical instruments where each instrument has a designated spot. This can make it easier to identify missing instruments visually.
6. Introduce smart surgical mats that can detect and count instruments placed on them, using embedded sensors.
7. Develop a routine for double-checking manual counts by two different staff members to ensure accuracy.
8. Use weight-sensitive trays that can indicate when a tool is missing by detecting the change in weight.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **4.6.1 Task automation**:
2. **8.2 Process Standardization** (again):
3. **4.6.1 Task automation**:

4. **4.2.1.2 Generalist**

5. **4.7.3 Interfacing**: Providing structured storage trays for surgical instruments involves using a standardized interface to streamline communications and processes.

6. **4.6.2 Integral Technology**

7. **4.5.1 Control Addition**: Developing a routine for double-checking manual counts by two different staff members integrates checks into a business process to ensure the completeness and correctness of incoming materials.

8. **4.6.2 Integral Technology**

Successful Redesign Patterns

Task automation, Integral Business Process Technology

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 7

- 1) Manual matching of incoming payments on bank statements against invoices issued to customers.
- 2) Reconciliation activity performed manually after a handoff by the customer.

GPT's Solutions

1. Implement an automated payment matching system that can accurately correlate incoming payments with issued invoices. This can substantially reduce manual efforts and errors, and free up staff for more valuable tasks.
2. Digitize the reconciliation process, using software that can automatically compare and align data after customer handoff. This not only minimizes the possibility of human error but also enhances process speed.
3. Introduce a training program for employees to familiarize them with the new systems and ensure smooth integration of the automated processes.
4. Regularly audit and update the automated systems to ensure accuracy and efficiency in the long run.
5. Look into opportunities for further automation in other parts of the process to create a more cohesive and streamlined workflow.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **4.6.1 Task Automation**: Implementing an automated payment matching system that can accurately correlate incoming payments with issued invoices is an example of using technology to perform tasks that were previously done manually.
2. **4.6.2 Integral Technology**: Digitizing the reconciliation process using software that can automatically compare and align data involves applying new technology to overcome physical constraints, potentially resulting in efficiency gains.

3. **4.2.1.1 Specialist**: Introducing a training program for employees to familiarize them with the new systems involves adjusting the ratio of specialists through training or hiring. Specialists are likely to develop a routine more quickly and have deeper knowledge, leading to quicker work and higher quality.
4. **4.5.1 Control Addition**: Regularly auditing and updating the automated systems integrates checks into a business process to ensure the completeness and correctness of incoming materials.
5. **4.6.1 Task Automation** (again): Looking into opportunities for further automation in other parts of the process is another example of using technology to perform tasks that were previously done manually, creating a more cohesive and streamlined workflow.

Successful Redesign Patterns

Task automation

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 8

In a healthcare patient discharge process, the nurse has to send a text message to remind the consultant to complete and certify a patient's medical certificate and prescription form, and remind the doctor to take the patient's home medications into consideration.

GPT's Solutions

1. Implement an automated reminder system that sends notifications to the consultant and doctor at appropriate times. This can help ensure timely completion of patient's medical certificates and consideration of home medications.
2. Establish standardized workflows that include a checklist for each professional involved in the discharge process. This would help to ensure all necessary tasks are completed.
3. Introduce a centralized digital platform where all healthcare professionals involved can update and view the patient's progress in real-time. This could help reduce communication delays and errors.
4. Provide training to staff on the new systems to ensure their effective use and adoption.
5. Regularly review and update these systems based on feedback from healthcare professionals to ensure they effectively support the discharge process.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****4.6.1 Task Automation****: Implementing an automated reminder system that sends notifications to the consultant and doctor is an example of using technology to perform tasks that were previously done manually.
2. ****4.7.3 Interfacing****: Establishing standardized workflows that include a checklist for each professional involved in the discharge process involves using a standardized interface to streamline communications and processes.
3. ****4.6.2 Integral technology****:

4. **4.2.1.1 Specialist**: Providing training to staff on the new systems involves adjusting the ratio of specialists through training or hiring. Specialists are likely to develop a routine more quickly and have deeper knowledge, leading to quicker work and higher quality.

5. **4.5.1 Control Addition**: Regularly reviewing and updating these systems based on feedback from healthcare professionals integrates checks into a business process to ensure the completeness and correctness of incoming materials.

Successful Redesign Patterns

Task automation

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 9

In an insurance procurement process, filling and retrieving document templates are done manually in the form of paper documents and in different places so it takes time to retrieve documents.

GPT's Solutions

1. Transition to a digital document management system. This will allow for easier document search and retrieval, and reduce the physical space needed for document storage.
2. Automate the filling of document templates using a tool that can populate fields based on a client's input or pre-existing data.
3. Implement a cloud-based system for document storage and retrieval, ensuring that documents can be accessed from any location and at any time.
4. Develop a standardized document filing and naming convention to ensure easy and quick document retrieval.
5. Utilize OCR (Optical Character Recognition) technology to digitize existing paper documents and make them searchable.
6. Implement a role-based access control system to ensure that only authorized individuals can access specific documents.
7. Establish a process for regular backups to prevent data loss.
8. Train staff on the new systems and procedures to ensure that everyone can efficiently use the new tools and understand the new document management processes.
9. Consider the use of AI and Machine Learning technologies for automated document categorization and sorting.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **4.6.2 Integral Technology**: Transitioning to a digital document management system involves applying new technology to overcome physical constraints, potentially resulting in efficiency gains.

2. **4.6.1 Task Automation**: Automating the filling of document templates using a tool that can populate fields is an example of using technology to perform tasks that were previously done manually.
3. **4.1.3 Centralization**: Implementing a cloud-based system for document storage and retrieval treats geographically dispersed resources as if they are centralized.
4. **8.2 Process standardization**:
5. **4.6.2 Integral Technology** (again): Utilizing OCR technology to digitize existing paper documents involves applying new technology to overcome physical constraints, potentially resulting in efficiency gains.
6. **4.5.1 Control Addition**:
7. **4.5.2 Buffering**: Establishing a process for regular backups involves subscribing to updates from external sources, ensuring that information is readily available when needed.
8. **4.2.1.1 Specialist**: Providing training to staff on the new systems involves adjusting the ratio of specialists through training or hiring. Specialists are likely to develop a routine more quickly and have deeper knowledge, leading to quicker work and higher quality.
9. **4.6.1 Task Automation**

Successful Redesign Patterns

Task automation, Integral Business Process Technology, Task automation

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 10

- 1) In an insurance procurement process, hardcopy of completing risk assessment checklist should be sent to several departments to get signatures from each department concerned.
- 2) Fax, phone and courier service are used by the sales and marketing department to communicate with its customers.

GPT's Solutions

1. Implement a digital signature system that allows departments to sign off on risk assessment checklists remotely and securely. This can reduce time spent circulating physical documents and enhance process efficiency.
2. Create a centralized online portal where all necessary documents can be uploaded, reviewed, and signed by all parties involved, improving traceability and accountability.
3. Upgrade the communication methods of the sales and marketing department. Introduce customer relationship management (CRM) tools that allow for automated emails, instant messaging, and video conferencing, reducing reliance on outdated methods like fax and courier service.
4. Establish a secure, cloud-based data storage system where all documents can be safely stored and easily accessed by authorized personnel from any location. This can further speed up the process and allow for real-time updates.
5. Regularly review and update the digital tools used to ensure they meet the company's evolving needs and adhere to industry best practices.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****4.6.2 Integral Technology****: Implementing a digital signature system involves applying new technology to overcome physical constraints, potentially resulting in efficiency gains.
2. ****4.1.3 Centralization****: Creating a centralized online portal where all necessary documents can be uploaded, reviewed, and signed by all parties involved treats geographically dispersed resources

as if they are centralized.

3. **4.6.2 Integral Technology** (again): Upgrading the communication methods of the sales and marketing department and introducing CRM tools involves applying new technology to overcome physical constraints, potentially resulting in efficiency gains.

4. **4.1.3 Centralization** (again): Establishing a secure, cloud-based data storage system where all documents can be safely stored and easily accessed by authorized personnel from any location treats geographically dispersed resources as if they are centralized.

5. **4.5.1 Control Addition**: Regularly reviewing and updating the digital tools used integrates checks into a business process to ensure the completeness and correctness of incoming materials.

Successful Redesign Patterns

Integral Business Process Technology, Task elimination, Capture data at the source

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 11

- 1) In a university registrar's office processes, employee manually enters students' data into the system.
- 2) In a patient discharge process, the ward clerk accesses and updates the hospital's database to actualize a patient's discharge, and logs into the central database to arrange a follow-up appointment for the patient.

GPT's Solutions

1. Use automated data entry software or bots to import student data into the system, reducing manual entry and associated errors.
2. Allow students to enter their own data through a secure online portal. This reduces the burden on office staff and ensures the accuracy of the information.
3. Use a centralized data management system to synchronize patient data across all hospital departments. When a patient is discharged, all necessary updates and follow-up appointments can be made within the same system, improving efficiency and reducing the chances of oversight or error.
4. Implement training programs for the ward clerk to enhance their database management skills and increase the efficiency of patient discharge and follow-up appointment arrangement.
5. Digitize and automate appointment scheduling to ensure a seamless flow of information and reduce waiting times for patients.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **4.6.1 Task Automation**: Using automated data entry software or bots to import student data into the system is an example of using technology to perform tasks that were previously done manually.
2. **1.1 Control Relocation**: Allowing students to enter their own data through a secure online

portal moves control and input of information from the office staff to the students.

3. **4.1.3 Centralization**: Using a centralized data management system to synchronize patient data across all hospital departments treats geographically dispersed resources as if they are centralized.

4. **4.2.1.1 Specialist**: Implementing training programs for the ward clerk to enhance their database management skills involves adjusting the ratio of specialists through training or hiring. Specialists are likely to develop a routine more quickly and have deeper knowledge, leading to quicker work and higher quality.

5. **4.6.1 Task Automation** (again): Digitizing and automating appointment scheduling is another example of using technology to perform tasks that were previously done manually, creating a more cohesive and streamlined workflow.

Successful Redesign Patterns

Outsourcing, Task automation

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 12

In a manufacturing supply chain process, sales forecasting data has to be re-input into the MS excel worksheet by extracting the updated sales order from sales information system. Because of the need to reenter the data several times, the data inconsistency and inaccuracy result in additional manual checking and unnecessary workload for the staff.

GPT's Solutions

1. Implement an integrated Enterprise Resource Planning (ERP) system that seamlessly connects sales forecasting data with the sales information system, eliminating the need for manual data re-entry.
2. Use an automated data transfer or synchronization tool to ensure that changes in one system are reflected in the other, reducing the risk of data inconsistency and inaccuracy.
3. Develop an API (Application Programming Interface) that allows the sales information system and Excel worksheet to communicate with each other directly.
4. Utilize cloud-based collaborative tools that allow for real-time data updates, reducing the need for data re-entry and manual checks.
5. Introduce machine learning algorithms for predictive sales forecasting. The algorithm can use historical sales data and other relevant factors to predict future sales.
6. Train staff on the new systems and procedures to ensure everyone can efficiently use the new tools and understand the new data management processes.
7. Regularly backup and validate data to prevent loss and ensure accuracy.
8. Implement a data governance strategy that includes regular audits of data accuracy and consistency.
9. Opt for data visualization tools that could present data in a more intuitive way, making it easier to spot anomalies and inconsistencies.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **4.6.2 Integral Technology**: Implementing an integrated ERP system involves applying new technology to streamline the process and enhance service quality.
2. **4.6.1 Task Automation**: Using an automated data transfer or synchronization tool is an example of using technology to perform tasks that were previously done manually.
3. **4.7.3 Interfacing**: Developing an API that allows the sales information system and Excel worksheet to communicate with each other directly involves using a standardized interface to streamline communications and processes.
4. **4.1.3 Centralization**: Utilizing cloud-based collaborative tools treats geographically dispersed resources as if they are centralized.
5. **4.6.2 Integral Technology** (again): Introducing machine learning algorithms for predictive sales forecasting involves applying new technology to overcome physical constraints, potentially resulting in efficiency gains.
6. **4.2.1.1 Specialist**: Providing training to staff on the new systems involves adjusting the ratio of specialists through training or hiring. Specialists are likely to develop a routine more quickly and have deeper knowledge, leading to quicker work and higher quality.
7. **4.5.2 Buffering**: Regularly backing up and validating data involves subscribing to updates from external sources, ensuring that information is readily available when needed.
8. **4.5.1 Control Addition**: Implementing a data governance strategy that includes regular audits of data accuracy and consistency integrates checks into a business process to ensure the completeness and correctness of incoming materials.
9. **4.6.2 Integral Technology** (again): Opting for data visualization tools involves applying new technology to overcome physical constraints, potentially resulting in efficiency gains.

Successful Redesign Patterns

Task automation, System integration

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 13

Such activities usually represent one or a few fractional procedures as "forward data" or "assign employee".

GPT's Solutions

1. Use an automated task assignment system that distributes tasks based on preset criteria, such as employee availability, skills, or workload.
2. Implement a centralized data management system that automatically forwards necessary data to relevant parties, reducing the need for manual forwarding.
3. Apply machine learning algorithms that can predict which employee is best suited for a task based on historical performance data and task requirements.
4. Use a project management tool to streamline task assignment and tracking. These tools can provide visibility into who is working on what, their progress, and whether there are any bottlenecks in the process.
5. Develop an API (Application Programming Interface) that allows different systems to communicate and share data seamlessly.
6. Introduce a shared digital workspace where all relevant data can be accessed and updated by authorized personnel, reducing the need for data forwarding.
7. Train employees to use these new tools effectively and to understand their roles within these automated systems.
8. Regularly review and update these systems to ensure they remain efficient and effective as organizational needs and technologies evolve.
9. Incorporate Robotic Process Automation (RPA) to automate routine tasks like data forwarding and employee assignment, freeing up staff to focus on more complex tasks.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****4.6.1 Task Automation****: Using an automated task assignment system to distribute tasks is an example of using technology to perform tasks that were previously done manually.
2. ****4.1.3 Centralization****: Implementing a centralized data management system treats geographically dispersed resources as if they are centralized.
3. ****4.6.2 Integral Technology****: Applying machine learning algorithms to predict which employee is best suited for a task involves applying new technology to streamline the process and enhance service quality.
4. ****4.6.2 Integral Technology**** (again): Using a project management tool to streamline task assignment and tracking involves applying new technology to overcome physical constraints, potentially resulting in efficiency gains.
5. ****4.7.3 Interfacing****: Developing an API that allows different systems to communicate and share data seamlessly involves using a standardized interface to streamline communications and processes.
6. ****4.1.3 Centralization**** (again): Introducing a shared digital workspace where all relevant data can be accessed and updated by authorized personnel treats geographically dispersed resources as if they are centralized.
7. ****4.2.1.1 Specialist****: Providing training to employees on the new tools involves adjusting the ratio of specialists through training or hiring. Specialists are likely to develop a routine more quickly and have deeper knowledge, leading to quicker work and higher quality.
8. ****4.5.1 Control Addition****: Regularly reviewing and updating these systems integrates checks into a business process to ensure the completeness and correctness of incoming materials.
9. ****4.6.1 Task Automation**** (again): Incorporating Robotic Process Automation (RPA) to automate routine tasks like data forwarding and employee assignment is another example of using technology to perform tasks that were previously done manually.

Successful Redesign Patterns

Task composition

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 14

In a university registrar's office processes, employee manually enters students' data into the system.

GPT's Solutions

1. Implement a student portal where students can enter and update their own data. This not only reduces the workload on the registrar's office but also encourages student responsibility and ensures data accuracy.
2. Employ an automated system or AI to perform data entry tasks. This could significantly reduce processing time and minimize human error.
3. Establish a centralized digital database that can be updated in real time, ensuring that all relevant departments have access to the most current information.
4. Use a batch processing system where multiple entries can be inputted at once, reducing the time and effort required for manual entry.
5. Train staff on the use of new systems and the importance of data accuracy. This will ensure that everyone can efficiently use the new tools and understand the new processes.
6. Implement data validation rules to automatically check the accuracy of the data being entered.
7. Regularly backup and update the database to prevent data loss and ensure its integrity.
8. Apply machine learning algorithms to predict potential mistakes during data entry and suggest corrections.
9. Move to cloud-based data management systems for better accessibility, scalability, and security.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****1.1 Control Relocation****: Implementing a student portal where students can enter and update their own data moves control and input of information from the registrar's office to the students.
2. ****4.6.1 Task Automation****: Employing an automated system or AI to perform data entry tasks is

an example of using technology to perform tasks that were previously done manually.

3. **4.1.3 Centralization**: Establishing a centralized digital database treats geographically dispersed resources as if they are centralized.

4. **2.5 Task composition or decomposition**

5. **4.2.1.1 Specialist**: Providing training to staff on the use of new systems involves adjusting the ratio of specialists through training or hiring. Specialists are likely to develop a routine more quickly and have deeper knowledge, leading to quicker work and higher quality.

6. **4.5.1 Control Addition**: Implementing data validation rules integrates checks into a business process to ensure the completeness and correctness of incoming materials.

7. **4.5.2 Buffering**: Regularly backing up and updating the database involves subscribing to updates from external sources, ensuring that information is readily available when needed.

8. **4.6.2 Integral Technology**: Applying machine learning algorithms to predict potential mistakes during data entry involves applying new technology to streamline the process and enhance service quality.

9. **4.1.3 Centralization** (again): Moving to cloud-based data management systems for better accessibility, scalability, and security is another example of treating geographically dispersed resources as if they are centralized.

Successful Redesign Patterns

Outsourcing

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 15

Several checks performed within one process in different process parts, where each check may require a set-up time and/or job handover.

GPT's Solutions

1. Consolidate all the checks into one centralized check, where possible, to minimize the set-up times and handovers.
2. Use an automated system to perform these checks. This system could be programmed to follow a predefined set of rules and perform all the checks in one go.
3. Implement process mining tools to identify redundant or unnecessary checks and eliminate them.
4. Streamline job handovers with digital tools that allow for seamless transitions and communication between teams.
5. Introduce a check scheduling system that can plan and coordinate the timing of checks to reduce delays and inefficiencies.
6. Utilize AI technologies to predict and prevent potential issues that these checks are designed to catch, thereby reducing the need for multiple checks.
7. Train staff on the use of these new systems and the streamlined process to ensure a smooth transition.
8. Regularly review the process to identify areas for further improvement and ensure the checks are effective and efficient.
9. Use machine learning algorithms to learn from previous checks and improve the efficiency and effectiveness of future checks.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **2.5 Task composition or decomposition**. **4.6.1 Task Automation**: Using an automated system to perform these checks is an example of using technology to perform tasks that were

previously done manually.

3. **2.2 Task elimination**:

4. **4.7.3 Interfacing**: Streamlining job handovers with digital tools involves using a standardized interface to streamline communications and processes.

5. **4.6.2 Integral Technology** (again): Introducing a check scheduling system that can plan and coordinate the timing of checks is another example of using technology to perform tasks that were previously done manually.

6. **4.6.2 Integral Technology** (again): Utilizing AI technologies to predict and prevent potential issues involves applying new technology to streamline the process and enhance service quality.

7. **4.2.1.1 Specialist**: Providing training to staff on the use of new systems involves adjusting the ratio of specialists through training or hiring. Specialists are likely to develop a routine more quickly and have deeper knowledge, leading to quicker work and higher quality.

8. **4.5.1 Control Addition**: Regularly reviewing the process to identify areas for further improvement integrates checks into a business process to ensure the completeness and correctness of incoming materials.

9. **4.6.2 Integral Technology** (again): Using machine learning algorithms to learn from previous checks and improve the efficiency and effectiveness of future checks involves applying new technology to streamline the process and enhance service quality.

Successful Redesign Patterns

Task resequencing, Task composition

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 16

In a currency management process in a bank, manual transaction registration and validations are done with errors due to manual job.

GPT's Solutions

1. Introduce an automated system to handle transaction registration and validation, minimizing the risk of manual errors.
2. Use artificial intelligence (AI) or machine learning algorithms to enhance the accuracy of validations.
3. Regularly train the staff on the importance of accuracy in transaction registration and validations to reduce the likelihood of errors.
4. Implement a double-checking or peer review system where another employee verifies the transaction before it is finalized.
5. Regularly audit and review transactions to identify common error patterns and address them through training or process modifications.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **4.6.1 Task Automation**: Introducing an automated system to handle transaction registration and validation is an example of using technology to perform tasks that were previously done manually.
2. **4.6.2 Integral Technology**: Using artificial intelligence (AI) or machine learning algorithms to enhance the accuracy of validations involves applying new technology to streamline the process and enhance service quality.
3. **4.2.1.1 Specialist**: Regularly training the staff on the importance of accuracy in transaction registration and validations involves adjusting the ratio of specialists through training or hiring. Specialists are likely to develop a routine more quickly and have deeper knowledge, leading to

quicker work and higher quality.

4. **4.5.1 Control Addition**: Implementing a double-checking or peer review system integrates checks into a business process to ensure the completeness and correctness of incoming materials.

5. **4.5.1 Control Addition**

Successful Redesign Patterns

Task automation, Integral Business Process Technology, Extra resources, Specialization, Staff training

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 17

In an order fulfillment process there are situations where the purchases are not approved in different stages of the process, so sent back to previous steps.

For instance, the ordered purchase is received, however, instead of forwarding it to the production process, the received material is sent back for purchase verification.

GPT's Solutions

1. Implement a robust verification and approval process before the order is placed to minimize the chances of a purchase not being approved at later stages.
2. Train staff on procurement guidelines and approval criteria to ensure orders are accurate and meet the necessary criteria.
3. Implement a digital purchase order system that allows for real-time tracking and verification of orders.
4. Integrate a process mining tool to continuously monitor and analyze the purchase order process, identifying bottlenecks or points of frequent error for further process improvement.
5. Establish clear communication and escalation paths for order discrepancies to speed up resolution and reduce process delays.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****4.5.1 Control Addition****: Implementing a robust verification and approval process before the order is placed integrates checks into a business process to ensure the completeness and correctness of incoming materials.
2. ****4.2.1.1 Specialist****: Training staff on procurement guidelines and approval criteria involves adjusting the ratio of specialists through training or hiring. Specialists are likely to develop a routine more quickly and have deeper knowledge, leading to quicker work and higher quality.
3. ****8.3 Continuous Improvement****:

4. **4.6.2 Integral Technology**: Integrating a process mining tool to continuously monitor and analyze the purchase order process involves ensuring that the process is being executed as designed and identifying deviations for correction.

5. **4.2.4 Triage**:

Successful Redesign Patterns

Outsourcing

If "GPT's Solutions" contains "Successful Redesign Patterns"

no

Case 18

In computed tomography (CT) scan process, radiographers and CT scanner are the most expensive resources and have fairly low utilizations. For example, the overall resource efficiency of Radiographer 1 is only 17.4%.

GPT's Solutions

1. Improve scheduling of CT scans to make optimal use of radiographers and CT scanners.
2. Train additional staff to operate the CT scanner, allowing more scans to be conducted simultaneously.
3. Consider investing in additional CT scanners if patient demand warrants it, thereby improving the overall utilization rate.
4. Implement a system to minimize no-shows and late arrivals, which can contribute to low resource utilization.
5. Use AI-based software to assist with some parts of the CT scan process, allowing radiographers to focus on tasks that require their unique skills.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **4.3.1 Resequencing**:
2. **4.6.1 Task automation**:
3. **4.5.1 Control addition**:
4. **8.1 Workload Management**:
5. **4.5.1 Control addition**:

Successful Redesign Patterns

Extra resources, Task elimination, Exception, Scheduling

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 19

In a university renewal of matriculation process, personnel resources work to capacity having a high workload.

GPT's Solutions

1. Hire additional staff to share the workload and reduce the pressure on existing personnel.
2. Implement a digital system where students can apply for renewal of matriculation online, reducing the need for manual processing.
3. Apply process automation to repetitive tasks to minimize the workload and improve efficiency.
4. Optimize scheduling and allocation of tasks among the staff to distribute the workload more evenly.
5. Provide training to staff for skills enhancement to manage the workload better.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **4.2 Extra Resources**: Hiring additional staff involves increasing the number of resources when capacity is insufficient to handle orders, which reduces queue time and enhances the flexibility of assignment policy (Page 1).
2. **4.7.3 Interfacing**:
3. **4.6.1 Task automation**:
4. **4.2.4 Triage**:
5. **4.2.1.1 Specialist and 4.2.1.2 Generalist**

Successful Redesign Patterns

Task automation, Outsourcing

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 20

In a credit contract assignment and handling process, once contracts are assigned, no later modifications can be realized in order to cope with any eventual work necessity or events.

GPT's Solutions

1. Introduce a process alteration mechanism within the credit contract assignment system that allows for modifications post-assignment under certain conditions.
2. Establish strict criteria or rules under which changes can be made after contracts are assigned. This would ensure the changes are made only in exceptional cases, maintaining the integrity of the initial contract.
3. Implement an approval process for making any changes after contracts are assigned. Any proposed modifications would require sign-off from relevant parties.
4. Automate notifications and updates to all stakeholders in case of contract modifications to ensure transparency and prompt communication.
5. Incorporate a robust auditing feature to track all changes made to a contract post-assignment. This would allow for greater accountability and control over the process.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****4.3.4 Exception****: Establishing strict criteria or rules under which changes can be made after contracts are assigned isolates exceptional cases and prevents them from disrupting normal operations (Page 1).
2. ****4.5.1 Control Addition****: Implementing an approval process and incorporating a robust auditing feature integrates checks into the process to ensure the completeness and correctness of contract modifications (Page 1).
3. ****4.7.3 Interfacing****:
4. ****4.6.1 Task automation****: Implementing an approval process where proposed modifications

require sign-off from relevant parties involves relying on assessments provided by reputable parties
(Page 1).

5. ****4.6.2 Integral technology****:

Successful Redesign Patterns

Task automation, Integral Business Process Technology

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 21

In retirement business process, all the information contained in Certified copy of marriage certificate of the applicant is already stated through 11 other documents available in this process.

GPT's Solutions

1. Implement a centralized document management system that eliminates the need for duplicate information across multiple documents. This could be a digital database where the information is stored and retrieved as needed.
2. Redesign the process to eliminate the need for the certified copy of the marriage certificate if all the necessary information is already available in other documents.
3. Use AI or machine learning technology to identify and flag duplicate information across multiple documents, thereby streamlining the data collection and verification process.
4. Implement data validation checks to prevent unnecessary repetition of data entry, reducing redundancy and the potential for errors.
5. Train staff on the new process and technology, emphasizing the importance of avoiding unnecessary duplication of information.
6. Regularly review the process to identify areas for further improvement and to ensure the system remains efficient and effective.
7. Develop an integrated system where data from the 11 other documents can be automatically populated into the relevant sections of the marriage certificate, eliminating manual data entry.
8. Utilize digital forms that are capable of pulling data from a central database to avoid repetition of information across multiple documents.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **4.1.3 Centralization**: Implementing a centralized document management system treats geographically dispersed resources as if they are centralized, often facilitated by a Workflow

Management System (Page 2).

2. ****2.2 Task Elimination****: Redesigning the process to eliminate the need for the certified copy of the marriage certificate removes unnecessary tasks from the business process (Page 1).

3. ****4.6.2 Integral technology****:

4. ****4.6.2 Integral technology****:

5. ****4.2.1.1 Specialist and 4.2.1.2 Generalist****: Training staff on the new process and technology involves adjusting the ratio of specialists and generalists through training (Page 1).

6. ****4.5.1 Control Additon****:

7. ****4.6.2 Integral Technology****: Applying new technology such as AI or machine learning and a centralized document management system to streamline the process and enhance service quality (Page 1).

8. ****4.6.1 Task automation****:

Successful Redesign Patterns

Data object elimination

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 22

In a manufacturing process, opening and closing both an Order and a Record are currently performed for two different purposes. Order signals work to be performed, while Record maintains configuration control, as required by regulations and standards.

Though practical use varies, the conceptual usage of both these informatical objects is redundant.

GPT's Solutions

1. Combine the functions of the Order and the Record into a single information object to minimize redundancy. This new object can signal work and maintain configuration control.
2. Introduce a software solution that allows both functions (signaling work and maintaining control) to be managed in one interface, streamlining the process.
3. Implement a process automation system that can perform both tasks, opening and closing of an Order and Record, based on predefined rules and triggers.
4. Revise the regulations and standards (if possible) to allow a more streamlined use of these information objects.
5. Conduct training to ensure that all users understand the optimal use of these objects to avoid redundancy.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****2.5 Task Composition****: Combining the functions of the Order and the Record into a single information object involves combining small tasks into larger, composite tasks (Page 1).
2. ****4.6.2 Integral Technology****: Introducing a software solution that allows both functions to be managed in one interface involves applying new technology to overcome physical constraints and enable new possibilities for how business is conducted (Page 1).
3. ****4.6.1 Task Automation****: Implementing a process automation system that can perform both tasks based on predefined rules and triggers involves using technology to perform tasks that were

previously done manually (Page 2).

4. **4.7.3 Interfacing**:

5. **4.2.1.1 Specialist and 4.2.1.2 Generalist**: Conducting training to ensure that all users understand the optimal use of these objects involves adjusting the ratio of specialists and generalists through training (Page 1).

Successful Redesign Patterns

Data object composition

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 23

In a government administration process, an activity requires looking up legal information available only on paper. This causes problems with the topicality of the information and the time needed to find it.

GPT's Solutions

1. Digitize the legal information for easier access and searchability. This can be accomplished by scanning the documents and using Optical Character Recognition (OCR) technology.
2. Implement a digital management system to automate the updating of the legal information, ensuring topicality.
3. Develop an advanced search functionality within the digital system to reduce the time required to locate specific legal information.
4. Implement a regular review process to maintain the accuracy and relevance of the legal information.
5. Conduct training sessions to familiarize staff with the use of the digital system and enhance their proficiency in finding legal information.
6. Maintain a backup paper-based system to ensure accessibility of the legal information in case of digital system failures.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****4.6.2 Integral Technology****: Digitizing the legal information and implementing a digital management system involves applying new technology to overcome physical constraints and enable new possibilities for how business is conducted (Page 1).
2. ****4.6.1 Task Automation****: Implementing a digital management system to automate the updating of the legal information involves using technology to perform tasks that were previously done manually (Page 2).

3. **4.6.2 Integral Technology**:

4. **4.5.1 Control Addition**: Implementing a regular review process integrates checks into the process to ensure the completeness and correctness of the legal information (Page 1).

5. **4.2.1.1 Specialist and 4.2.1.2 Generalist**: Conducting training sessions to familiarize staff with the use of the digital system involves adjusting the ratio of specialists and generalists through training (Page 1).

6. **4.5.2 Buffering**:

Successful Redesign Patterns

Integral Business Process Technology

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 24

In bills of materials development process, product planner and material resource planner communicate back and forth for the information without engineering input - such handovers do not add any value.

GPT's Solutions

1. Include an engineering representative in the communication process to provide necessary input and avoid unnecessary back-and-forth between the product planner and material resource planner.
2. Implement a collaborative platform where all three parties (product planner, material resource planner, and engineer) can share information and updates in real time.
3. Designate an individual or team to coordinate the communication between the parties involved to minimize misunderstandings and streamline the process.
4. Regularly review and optimize the communication process to ensure it is as efficient as possible and adds value to the bills of materials development process.
5. Implement training to ensure all parties understand their roles and responsibilities within the communication process.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****4.1.7 Case Manager****:
2. ****4.1.3 Centralization****:
3. ****4.1.7 Case Manager****:
4. ****4.5.1 Control Addition****: Regularly reviewing and optimizing the communication process integrates checks into the process to ensure the completeness and correctness of the communication (Page 1).
5. ****4.2.1.1 Specialist and 4.2.1.2 Generalist****: Implementing training to ensure all parties understand their roles involves adjusting the ratio of specialists and generalists through training

(Page 1).

Successful Redesign Patterns

Task resequencing, Data handover elimination

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 25

In a new product development process, relevant information is buried within documents, emails and spread across dozens of physical cabinets. This uncontrolled environment included 80% of unstructured data and related decisions. These made the needed information not accessible or hard to find for the employees.

GPT's Solutions

1. Implement a central digital repository for all product development information. Use cloud storage or other document management systems to ensure data is accessible and secure.
2. Introduce a document management system that categorizes and organizes information based on various criteria such as project, date, or subject matter.
3. Utilize data mining and machine learning algorithms to analyze and structure the unstructured data, making it easier to search and access.
4. Adopt collaborative platforms that reduce the reliance on email for internal communication and centralize discussions, decisions, and relevant documents.
5. Conduct regular audits of the information stored and dispose of redundant, outdated, and trivial (ROT) data.
6. Offer training to employees on how to properly utilize these new systems and tools to maximize their productivity and efficiency.
7. Incorporate a digital tagging system in the document management system for quick and efficient retrieval of relevant information.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **4.1.3 Centralization**: Implementing a central digital repository treats geographically dispersed resources as if they are centralized, often facilitated by a Workflow Management System (Page 2).
2. **4.6.2 Integral Technology**: Introducing a document management system and utilizing data

mining and machine learning algorithms involves applying new technology to overcome physical constraints and enable new possibilities for how business is conducted (Page 1).

3. ****4.6.2 Integral Technology****:

4. ****4.1.3 Centralization****:

5. ****4.5.1 Control Addition****: Conducting regular audits of the information stored integrates checks into the process to ensure the completeness and correctness of the data (Page 1).

6. ****4.2.1.1 Specialist and 4.2.1.2 Generalist****: Offering training to employees on how to properly utilize these new systems involves adjusting the ratio of specialists and generalists through training (Page 1).

7. ****4.6.2 Integral Technology****

Successful Redesign Patterns

Integral Business Process Technology, Data standardization

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 26

Receiving incomplete applications from clients.

GPT's Solutions

1. Implement an online application system that doesn't allow the submission of an application until all mandatory fields are filled.
2. Use automated email reminders or notifications for clients who have started but not yet completed their applications.
3. Simplify the application process, reducing the number of required fields to only those that are absolutely necessary.
4. Provide clear instructions and examples to guide clients in completing the application.
5. Introduce a pre-submission review where an employee checks the application for completeness before it's officially submitted.
6. Offer a help desk or customer service support for applicants who may need assistance in completing their application.
7. Implement a user-friendly interface that saves application progress, enabling clients to return and complete their application at their convenience.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****4.7.3 Interfacing****:
2. ****4.6.1 Task Automation****: Using automated email reminders or notifications involves using technology to perform tasks that were previously done manually (Page 2).
3. ****2.2 Task elimination****:
4. ****4.7.3 Interfacing****:
5. ****4.5.1 Control addition****:
6. ****4.1.5 Customer Teams****:

7. **4.7.3 Interfacing**: Implementing a user-friendly interface that saves application progress involves using a standardized interface to streamline communications and processes (Page 1).

Successful Redesign Patterns

Add data object, Follow up, Capture data at source, Integral Business Process Technology

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 27

In the discharge procedure, data errors often occur: the nurse might mix up patients with the same names or similar traits and administer the wrong medication to different patients.

GPT's Solutions

1. Introduce a unique patient identification system such as electronic ID bracelets that contain patient details, ensuring that each patient is correctly identified.
2. Implement a double-check system where two different nurses independently verify the patient's identity and medication before administration.
3. Utilize bar-code scanning for medication administration, where both the patient's ID and the medication have bar codes that need to be scanned before administration.
4. Incorporate a digital health record system, where all patient information, including prescribed medication, is stored digitally and easily accessed by the medical team.
5. Provide ongoing training for nurses about the importance of patient identification and the steps to be taken to avoid errors.
6. Enhance the nurse-to-patient ratio to reduce workload, thus minimizing the chance for mistakes due to stress or overwork.
7. Establish a robust reporting system for errors, where mistakes can be openly discussed and used to improve the discharge procedure.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****4.6.2 Integral Technology****: Introducing a unique patient identification system such as electronic ID bracelets and utilizing bar-code scanning for medication administration involves applying new technology to streamline the process and enhance service quality (Page 1).
2. ****4.5.1 Control Addition****: Implementing a double-check system where two different nurses independently verify the patient's identity and medication integrates checks into the process to

ensure the completeness and correctness of the patient identification and medication administration (Page 1).

3. **4.5.1 Control Addition**:

4. **4.1.3 Centralization**: Incorporating a digital health record system treats geographically dispersed resources as if they are centralized, often facilitated by a Workflow Management System (Page 2).

5. **4.2.1.1 Specialist and 4.2.1.2 Generalist**: Providing ongoing training for nurses involves adjusting the ratio of specialists and generalists through training (Page 1).

6. **4.2 Extra resources**:

7. **4.5.2 Control Relocation**: Establishing a robust reporting system for errors involves relocating control to where the information is, or where the decision is made (Page 1).

Successful Redesign Patterns

Task automation, Add data object, Integral Business Process Technology

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 28

1) In a new product development process, knowledge, expertise, experience is often just in employee s heads, and not properly recorded or documented.

Hence, these employees are constantly interrupted to provide their knowledge to other employees.

2) In an incident reporting process at IT Help Desk, only 30% of the total number of incidents are recorded where minor issues are not recorded at all. Hence, same and simialr issues need to be repeatedly solved from scratch that increases the cycle time of the process.

GPT's Solutions

1. Implement a knowledge management system where employees can document their insights, experience, and expertise related to the new product development process. This way, other employees can access this information without interrupting those with the knowledge.
2. Promote a culture of knowledge sharing within the organization, encouraging employees to document their work, insights, and learning experiences.
3. Training sessions or workshops could be held to make sure everyone is capable of properly documenting their knowledge and expertise.
4. Invest in a robust incident reporting system at the IT Help Desk that enables tracking and recording of all incidents, including minor ones. This could help in identifying patterns, predicting potential issues, and ensuring quick resolution of recurring problems.
5. Create a standard operating procedure (SOP) for recording incidents and providing solutions. All team members should be trained on this SOP to ensure a uniform approach.
6. Incorporate the use of AI-based chatbots or similar technology to deal with minor incidents. This could free up time for the IT help desk to deal with more complex issues.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****4.1.3 Centralization****: Implementing a knowledge management system treats geographically

dispersed resources as if they are centralized, often facilitated by a Workflow Management System (Page 2).

2. **8.4 Advocacy Management**3. **4.2.1.1 Specialist and 4.2.1.2 Generalist**: Holding training sessions or workshops involves adjusting the ratio of specialists and generalists through training (Page 1).

4. **4.6.2 Integral technology**:

5. **4.2.1.1 Specialist and 4.2.1.2 Generalist**:

6. **4.6.1 Task Automation**: Incorporating the use of AI-based chatbots or similar technology to deal with minor incidents involves using technology to perform tasks that were previously done manually (Page 2).

Successful Redesign Patterns

Integral Business Process Technology

If "GPT's Solutions" contains "Successful Redesign Patterns"

no

Case 29

- 1) Unavailability of real time currency stock information in a currency management process in bank.
- 2) Lack of visibility of bed availability in hospital wards in bed allocation process for in-patient admissions.

GPT's Solutions

For the currency management process in a bank:

- 1) Implement a real-time currency tracking system, which updates in real time based on the buying and selling of different currencies.
- 2) Utilize AI forecasting models to predict the demand and supply for different currencies, and maintain a balance in stock.
- 3) Provide employees with training to use and understand the new real-time tracking system.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **4.6.2 Integral technology**:
2. **4.6.2 Integral technology**:
3. **4.2.1.1 Specialist**:

1. **4.1.3 Centralization**:
2. **4.6.2 Integral technology**:
3. **4.6.2 Integral technology**:
4. **4.2.1.1 Specialist**:

Successful Redesign Patterns

Integral Business Process Technology

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 30

- 1) Unavailability of real time currency stock information in a currency management process in bank.
- 2) Lack of visibility of bed availability in hospital wards in bed allocation process for in-patient admissions.

GPT's Solutions

For the currency management process in a bank:

- 1) Implement a real-time currency tracking system, which updates in real time based on the buying and selling of different currencies.
- 2) Utilize AI forecasting models to predict the demand and supply for different currencies, and maintain a balance in stock.
- 3) Provide employees with training to use and understand the new real-time tracking system.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **4.6.2 Integral technology**:
2. **4.6.2 Integral technology**:
3. **4.2.1.1 Specialist**:

Successful Redesign Patterns

Integral Business Process Technology

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 31

When a new case arrives, a team-leader schedules a meeting, waits for it and then processes the case.

GPT's Solutions

1. Implement an automated case management system that immediately alerts the team leader and the team of a new case arrival, thus reducing wait time.
2. Allow for asynchronous communication or meetings, so the team leader and the team can begin discussing and planning for the case immediately, without waiting for a formal meeting.
3. Create protocols for immediate action steps upon receiving a new case. This may include preliminary research, assigning tasks to team members, or discussing the case in a dedicated communication channel.
4. If meetings are necessary, consider using a scheduling tool that finds a suitable meeting time for all team members quickly.
5. Train the team leader and the team on efficient case management strategies and the use of digital tools to minimize delays in processing new cases.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****4.6.1 Task Automation****: Implementing an automated case management system involves using technology to perform tasks that were previously done manually, such as alerting the team leader and the team of a new case arrival (Page 2).
2. ****4.7.3 Interfacing****: Allowing for asynchronous communication or meetings involves using a standardized interface to streamline communications and processes (Page 1).
3. ****4.3.1 Resequencing****: Creating protocols for immediate action steps upon receiving a new case integrates checks into the process to ensure the completeness and correctness of the case management (Page 1).

4. **4.6.2 Integral Technology**: Using a scheduling tool that finds a suitable meeting time for all team members involves applying new technology to overcome physical constraints and enable new possibilities for how business is conducted (Page 1).

5. **4.2.1.1 Specialist and 4.2.1.2 Generalist**: Training the team leader and the team on efficient case management strategies involves adjusting the ratio of specialists and generalists through training (Page 1).

Successful Redesign Patterns

Case-based work

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 32

In a SLA process, a high waiting time before submission of the report to the client was identified.

The process leader was sending a single consolidated report at the end of work rather than sending multiple reports at different points of time. During peak volume days, compile records were processed within four hours and they sent the first report at the fourth hour when a subsequent reports were already available at half-an-hour intervals.

GPT's Solutions

1. Revisit the reporting process and introduce incremental reporting, where reports are sent at different points in time as they become available rather than waiting to send one consolidated report at the end.
2. Implement an automated system that sends out reports at defined intervals or immediately after they are generated, thereby reducing waiting time.
3. Communicate the changes in the reporting process to the client and explain the benefits, such as more frequent updates and faster report turnaround times.
4. Incorporate a digital dashboard for the client to view real-time progress and reports on demand.
5. Provide training to the process leader on the new reporting protocol and how to use the automated system.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****2.3 Order-based work****: Revisiting the reporting process and introducing incremental reporting involves making tasks less complex and easier to perform (Page 1).
2. ****4.6.1 Task Automation****: Implementing an automated system that sends out reports at defined intervals involves using technology to perform tasks that were previously done manually (Page 2).
3. ****4.1.5 Customer Teams****:
4. ****4.6.2 Integral Technology****: Incorporating a digital dashboard for the client to view real-time

progress and reports involves applying new technology to overcome physical constraints and enable new possibilities for how business is conducted (Page 1).

5. ****4.2.1.1 Specialist and 4.2.1.2 Generalist****: Providing training to the process leader on the new reporting protocol involves adjusting the ratio of specialists and generalists through training (Page 1).

Successful Redesign Patterns

Case-based work, Change batching schedule, Outsourcing

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 33

In an incident management process at IT Service Desk, Front Line Team services overlap with the services provided by Information Technology Services (ITS) division.

GPT's Solutions

1. Clearly define the roles and responsibilities of the Front Line Team and the ITS division to avoid overlaps in services.
2. Implement a service catalog that clearly outlines the services provided by each team and ensure it's communicated across the organization.
3. Establish an incident routing system that ensures incidents are directed to the appropriate team based on the nature of the incident.
4. Conduct regular meetings between the two teams to discuss process improvements, possible overlaps, and how to effectively resolve them.
5. Create a cross-functional team or point person who understands the responsibilities of both teams and can guide the incident to the correct team.
6. Provide training to both teams about their defined roles and responsibilities, and the process to follow when overlaps occur.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****4.1.4 Split responsibilities****:
2. ****4.1.4 Split responsibilities****:
3. ****4.2.4 Triage****:
4. ****1.3 Integration****:
5. ****4.1.7 Case Manager****:
6. ****4.2.1.1 Specialist and 4.2.1.2 Generalist****: Providing training to both teams on their defined roles and responsibilities involves adjusting the ratio of specialists and generalists through training

Successful Redesign Patterns

Resource reallocation

If "GPT's Solutions" contains "Successful Redesign Patterns"

no

Case 34

In the procurement process some fragments took the longest time in the process: make requisition , process requisition , receive services , and receive parts .

GPT's Solutions

1. Implement an automated system for making and processing requisitions, reducing the time taken for these activities.
2. Utilize supplier portals to streamline the process of receiving services and parts, enabling real-time tracking and efficient communication with suppliers.
3. Develop a digital approval system to speed up the process of approving requisitions.
4. Train staff on efficient requisition creation and processing practices.
5. Use predictive analytics to anticipate the need for services and parts in advance, allowing requisitions to be processed ahead of time.
6. Revise the procurement process to identify and eliminate any unnecessary steps or approvals in the "make requisition" and "process requisition" stages.
7. Strengthen supplier relationships to ensure quicker response times when services and parts are received.
8. Conduct regular reviews of the procurement process to identify bottlenecks and areas for improvement.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****4.6.1 Task Automation****: Implementing an automated system for making and processing requisitions is an example of using technology to perform tasks that were previously done manually.
2. ****4.7.3 Interfacing****: Utilizing supplier portals to streamline the process of receiving services and parts involves using a standardized interface with customers and partners to streamline communications and processes.

3. ****4.6.2 Integral Technology****: Developing a digital approval system involves applying new technology to overcome physical constraints, potentially resulting in efficiency gains and enabling new possibilities for how business is conducted.
4. ****4.2.1.1 Specialist****: Training staff on efficient requisition creation and processing practices involves adjusting the ratio of specialists through training.
5. ****4.6.2 Integral Technology****:
6. ****2.2 Task Elimination****: Revising the procurement process to identify and eliminate any unnecessary steps or approvals involves removing unnecessary tasks from a business process.
7. ****4.7.1 Trusted Party****: Strengthening supplier relationships involves relying on information or assessments provided by a reputable third party.
8. ****4.5.1 Control addition****:

Successful Redesign Patterns

Task elimination

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 35

In Virtual Private Network (VPN) connection request handling process, from the cost analysis of the process it was identified, that the parts of the process which implied connection testing appeared to be the most expensive parts of the process.

GPT's Solutions

1. Implement an automated system for VPN connection testing that can identify and fix common issues without human intervention.
2. Conduct a thorough review of the connection testing process to identify areas of inefficiency or unnecessary steps that can be eliminated or streamlined.
3. Invest in more advanced testing tools or software that can conduct the testing more efficiently and accurately.
4. Schedule regular training sessions for the technical team handling the process to improve their efficiency and expertise in conducting connection tests.
5. Encourage the use of self-service tools by users for minor troubleshooting and testing, reducing the burden on the support team.
6. Consider outsourcing the connection testing process to a specialist company if it proves to be more cost-effective.
7. Regularly review and update the testing protocols and tools to ensure they remain efficient and cost-effective.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****4.6.1 Task Automation****: Implementing an automated system for VPN connection testing involves using technology to perform tasks that were previously done manually, aiming for faster execution, lower cost, and better results.
2. ****2.2 Task Elimination****: Conducting a thorough review of the connection testing process to

identify and eliminate unnecessary steps involves removing tasks that add no value from the customer's point of view.

3. **4.6.2 Integral Technology**: Investing in more advanced testing tools or software involves applying new technology to overcome physical constraints, potentially resulting in efficiency gains and enabling new possibilities for how business is conducted.

4. **4.2.1.1 Specialist**: Scheduling regular training sessions for the technical team involves adjusting the ratio of specialists through training, leading to quicker work and higher quality.

5. **1.1 Control Relocation**: Encouraging the use of self-service tools by users for minor troubleshooting and testing involves shifting checks and reconciliation operations from the business to the customer side.

6. **4.7.2 Outsourcing**: Considering outsourcing the connection testing process to a specialist company involves delegating a business process or parts of it to a third party who might perform it more efficiently.

7. **4.5.1 Control addition**:

Successful Redesign Patterns

Fragment automation, Outsourcing

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 36

In a parcel shipping process, one has to follow the exact same pattern (method) throughout all carriers, which is Ship to Person at Address. Exceptions such as address not located or consignee not found are costly in terms of time and money for both the delivery company as well as the receiver. In the case in which the packages are delivered to the exact shipping address, they take an average of

3.46 days to arrive.

Otherwise, it takes an additional

1.88 days for a consignee to go pick them up from packet shops that are, on average,

1.99 kilometers away from the planned shipping address

GPT's Solutions

1. Implement a real-time tracking system that allows both the delivery company and the receiver to monitor the delivery status and potentially address issues like the consignee not being available.
2. Allow receivers to change the delivery address or specify alternate delivery addresses where packages can be left if they are not at the primary address.
3. Provide an option for scheduled delivery, allowing the consignee to select a suitable time slot for delivery.
4. Use data analytics to identify common reasons for delivery exceptions and implement targeted strategies to reduce them.
5. Collaborate with local businesses to increase the number of packet shops, reducing the distance the consignee has to travel to pick up a package.
6. Improve communication with consignees about delivery times and the location of packet shops.
7. Train delivery staff on best practices to handle exceptions and expedite the delivery process.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****4.6.2 Integral Technology****: Implementing a real-time tracking system involves applying new technology to overcome physical constraints, potentially resulting in efficiency gains and enabling new possibilities for how business is conducted.
2. ****1.1 Control Relocation****: Allowing receivers to change the delivery address or specify alternate delivery addresses involves shifting checks and reconciliation operations from the business to the customer side.
3. ****4.1.6 Numerical Involvement****: Providing an option for scheduled delivery involves minimizing the number of departments, groups, and individuals involved in a business process, reducing the amount of time spent coordinating tasks and responsibilities.
4. ****4.6.2 Integral Technology****:
5. ****4.7.1 Trusted Party****: Collaborating with local businesses to increase the number of packet shops involves relying on information or assessments provided by a reputable third party.
6. ****4.7.3 Interfacing****: Improving communication with consignees about delivery times and the location of packet shops involves using a standardized interface with customers and partners to streamline communications and processes.
7. ****4.2.1.1 Specialist****: Training delivery staff on best practices to handle exceptions and expedite the delivery process involves adjusting the ratio of specialists through training, leading to quicker work and higher quality.

Successful Redesign Patterns

Exception, Exception elimination

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 37

The workflow for quotation approval involves the triggering event of notification of quotation and few steps and loops before it terminates.

GPT's Solutions

1. Implement an automated system for quotation approval, reducing the time spent on manual steps and loops.
2. Streamline the workflow by eliminating unnecessary steps and simplifying the approval process.
3. Enable real-time tracking of quotation status to increase transparency and reduce the need for manual checks.
4. Use electronic signatures for approval to expedite the process.
5. Set up automated notifications for each step of the approval process to keep all relevant parties informed and facilitate faster responses.
6. Introduce a system of priority levels for quotation approval, ensuring urgent quotations are handled promptly.
7. Regularly review and refine the approval process to maintain its efficiency and effectiveness.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****4.6.1 Task Automation****: Implementing an automated system for quotation approval involves using technology to perform tasks that were previously done manually, aiming for faster execution, lower cost, and better results.
2. ****2.2 Task Elimination****: Streamlining the workflow by eliminating unnecessary steps involves removing tasks that add no value from the customer's point of view.
3. ****4.6.2 Integral Technology****: Enabling real-time tracking of quotation status involves applying new technology to overcome physical constraints, potentially resulting in efficiency gains and enabling new possibilities for how business is conducted.

4. **4.6.2 Integral Technology**:

5. **4.6.2 Integral Technology**:

6. **4.2.4 Triage**:

7. **4.5.1 Control addition**:

Successful Redesign Patterns

Fragment automation

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 38

Information exchange going on between customer and employee not implying any decision-making, i.e.

notifications on order progress.

GPT's Solutions

1. Implement an automated system that sends order progress notifications to the customer, reducing the need for manual information exchange between the customer and employee.
2. Utilize a customer portal where customers can log in and check their order status anytime, eliminating the need for direct interaction with employees for status updates.
3. Incorporate real-time tracking features for orders, providing the customer with constant updates and visibility of their order's journey.
4. Establish a standard process for communication, which sends out automated, scheduled updates about order progress.
5. Set up automated email or SMS notifications for significant stages of the order process, such as "order received", "order shipped", "order delivered", etc.
6. Introduce a chatbot on the company website or app to answer basic customer queries regarding order progress.
7. Train customer service employees to use these automated systems to efficiently manage customer inquiries.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****4.6.1 Task Automation****: Implementing an automated system that sends order progress notifications involves using technology to perform tasks that were previously done manually, aiming for faster execution, lower cost, and better results.
2. ****1.2 Contact reduction****:

3. ****4.6.2 Integral Technology****: Incorporating real-time tracking features for orders involves applying new technology to overcome physical constraints, potentially resulting in efficiency gains and enabling new possibilities for how business is conducted.
4. ****4.7.3 Interfacing****: Establishing a standard process for communication, which sends out automated, scheduled updates about order progress involves using a standardized interface with customers and partners to streamline communications and processes.
5. ****4.6.2 Integral Technology****:
6. ****4.6.1 Task Automation****: Introducing a chatbot on the company website or app to answer basic customer queries regarding order progress is another example of using technology to perform tasks that were previously done manually.
7. ****4.2.1.1 Specialist****: Training customer service employees to use these automated systems involves adjusting the ratio of specialists through training, leading to quicker work and higher quality.

Successful Redesign Patterns

Task automation, Outsourcing

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 39

The complexity of work is assessed according to continuum ranging from simple procedural work (performed by ordinary workers), more complex knowledge work (performed by knowledge workers), and very complex work (performed by experts). For instance, in a breast cancer examination and assessment process, there is procedural work performed by the receptionist, such as appointment booking; knowledge work - initial scheduling performed by the clinical nurse and expert work - patient examination, data analysis, final conclusion determination performed by clinical nurses, physicians, radiologists and expert teams. Fragment including knowledge and expert work and involving the client is an opportunity for improvement in terms of quality of customer service.

GPT's Solutions

1. Streamline the knowledge and expert work process by introducing a team-based approach where different experts collaborate and share their findings in real-time.
2. Implement a knowledge management system that facilitates the exchange of information between ordinary workers, knowledge workers, and experts.
3. Enhance customer service by providing clients with a dedicated point of contact who can guide them through the process and keep them updated.
4. Use artificial intelligence or machine learning tools to aid in patient examination and data analysis, reducing the workload of experts and improving accuracy.
5. Increase the role of clinical nurses in the examination process and equip them with necessary tools and training to handle more complex tasks.
6. Introduce periodic training and development programs for the staff to upgrade their skills and knowledge, allowing them to handle more complex tasks and deliver better customer service.
7. Regularly review and update the process to ensure continuous improvement and high-quality customer service.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **4.1.3 Centralization**:
2. **4.6.2 Integral Technology**: Implementing a knowledge management system involves applying new technology to facilitate the exchange of information, potentially resulting in efficiency gains and enabling new possibilities for how business is conducted.
3. **4.1.5 Customer Teams**:
4. **4.6.1 Task Automation**: Using artificial intelligence or machine learning tools to aid in patient examination and data analysis involves using technology to perform tasks that were previously done manually, aiming for faster execution, lower cost, and better results.
5. **4.2.1.1 Specialist**: Increasing the role of clinical nurses in the examination process and equipping them with necessary tools and training involves adjusting the ratio of specialists through training, leading to quicker work and higher quality.
6. **4.2.1.1 Specialist**: Introducing periodic training and development programs for the staff to upgrade their skills and knowledge also involves adjusting the ratio of specialists through training, leading to quicker work and higher quality.
7. **4.5.1 Control addition**:

Successful Redesign Patterns

Boundary spanner, Casebased work, Task resequencing

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 40

In a SIM card supply chain process, each party involved in the process had different ways and procedures of communicating with the SIM supplier.

GPT's Solutions

1. Implement a standardized communication protocol that all parties must follow when interacting with the SIM supplier.
2. Use a centralized platform or system for all communication with the supplier to maintain consistency and transparency.
3. Establish regular meetings or check-ins with the SIM supplier to ensure clear and consistent communication.
4. Develop guidelines or a manual detailing the communication procedures with the SIM supplier, and distribute it to all parties involved in the process.
5. Provide training sessions to the involved parties on the established communication protocols with the SIM supplier.
6. Appoint a liaison or point of contact for the SIM supplier to streamline communication and prevent confusion.
7. Regularly review and refine the communication process based on feedback from all parties involved, including the SIM supplier.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****4.7.3 Interfacing****: Implementing a standardized communication protocol involves using a standardized interface with customers and partners to streamline communications and processes.
2. ****4.6.2 Integral Technology****: Using a centralized platform or system for all communication with the supplier involves applying new technology to facilitate the exchange of information, potentially resulting in efficiency gains and enabling new possibilities for how business is conducted.

3. **4.1.7 Case Manager**:

4. **4.7.3 Interfacing**: Developing guidelines or a manual detailing the communication procedures with the SIM supplier involves providing more flexibility in task assignment and resource allocation, allowing for collaboration and sharing of findings.

5. **4.2.1.1 Specialist**: Providing training sessions to the involved parties on the established communication protocols involves adjusting the ratio of specialists through training, leading to quicker work and higher quality.

6. **4.1.7 Case Manager**:

7. **4.1.7 Case Manager**

Successful Redesign Patterns

Variant elimination

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 41

In electronics retailer support service, call center receives different type of calls including customer calls, call dispatching and technician calls. Once the call nature is identified and documented, the support service works further with customer calls when dispatching and technician calls are transferred to the dispatch center of each business product unit.

GPT's Solutions

1. Implement an Interactive Voice Response (IVR) system to automate the initial identification of the nature of the call and direct it to the appropriate department, thereby reducing the workload on the call center staff.
2. Train support service staff to quickly identify and categorize the nature of the call, thus improving efficiency in transferring calls to relevant departments.
3. Introduce a ticketing system to keep track of calls and ensure that no call is left unattended or lost during transfer.
4. Establish a system for regularly analyzing call patterns and volumes to identify trends and potential areas of improvement in call handling.
5. Incorporate a feedback mechanism to gather customer and technician input on the call handling process to help identify bottlenecks or issues.
6. Regularly conduct skill enhancement sessions for call center employees to improve their call handling and customer service skills.
7. Consider implementing a chatbot or an online self-service system to handle simple customer inquiries, reducing the call volume.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **4.6.1 Task Automation**: Implementing an Interactive Voice Response (IVR) system involves using technology to perform tasks that were previously done manually, aiming for faster execution,

lower cost, and better results.

2. **4.2.1.1 Specialist**: Training support service staff to quickly identify and categorize the nature of the call involves adjusting the ratio of specialists through training, leading to quicker work and higher quality.

3. **4.6.2 Integral Technology**: Introducing a ticketing system involves applying new technology to facilitate the exchange of information, potentially resulting in efficiency gains and enabling new possibilities for how business is conducted.

4. **4.6.2 Integral Technology**:

5. **8.3 Continuous Improvement**6. **4.2.1.1 Specialist**: Regularly conducting skill enhancement sessions for call center employees also involves adjusting the ratio of specialists through training, leading to quicker work and higher quality.

7. **4.6.1 Task Automation**: Implementing a chatbot or an online self-service system to handle simple customer inquiries is another example of using technology to perform tasks that were previously done manually.

Successful Redesign Patterns

Generalization

If "GPT's Solutions" contains "Successful Redesign Patterns"

no

Case 42

In a process of order handling of comprehensive technological solutions, an inordinate amount of cycle time was wasted in delays and rework created by inaccurate or unfeasible orders. Proposals coming from the sales activities often contained requirements that could not be met by purchasing or manufacturing, causing the entire proposal to be reworked and/or renegotiated with the potential customers. Potential customers were put off by the delays and were often angry at the number of renegotiations required before coming to some workable compromise on what they want.

GPT's Solutions

1. Develop a comprehensive checklist or guideline for sales teams that outlines the capabilities and limitations of purchasing and manufacturing, to avoid promising unfeasible requirements.
2. Train sales staff on the technical aspects of the solutions, as well as the capabilities of manufacturing and purchasing departments.
3. Implement a real-time tracking system to monitor order status, detect inaccuracies earlier, and reduce rework.
4. Introduce a system for pre-approval of proposals by purchasing and manufacturing departments before they are presented to customers.
5. Enhance communication and collaboration between sales, purchasing, and manufacturing departments to ensure alignment on feasible solutions.
6. Regularly review and refine the order handling process based on feedback from staff and customers.
7. Implement an automated order processing system to ensure accuracy and feasibility of orders.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **4.7.3 Interfacing**:
2. **4.2.1.1 Specialist**: Training sales staff on the technical aspects of the solutions and the

capabilities of manufacturing and purchasing departments involves adjusting the ratio of specialists through training, leading to quicker work and higher quality.

3. ****4.6.2 Integral Technology****: Implementing a real-time tracking system involves applying new technology to facilitate the exchange of information, potentially resulting in efficiency gains and enabling new possibilities for how business is conducted.

4. ****4.5.1 Control addition****: Introducing a system for pre-approval of proposals by purchasing and manufacturing departments involves shifting checks and reconciliation operations from the business to the customer side.

5. ****8.6 Cross-functional Collaboration****:

6. ****8.3 Continuous Improvement****7. ****4.6.1 Task Automation****: Implementing an automated order processing system involves using technology to perform tasks that were previously done manually, aiming for faster execution, lower cost, and better results.

Successful Redesign Patterns

Control addition, Control relocation, Staff training

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 43

- 1) In a car rental process Prepare Contract and Prepare Car activities are independent, as the one is done by a mechanic and the other is done the rental clerk. Activities do not depend on each other for the input.
- 2) Unnecessary delays in the process execution can be observed, because an activity may be waiting for another activity to finish, while this activity is not depending on the results of that activity.

GPT's Solutions

1. Implement parallel processing where the "Prepare Contract" and "Prepare Car" activities can be done simultaneously since they do not depend on each other.
2. Introduce a job scheduling system that can help manage and allocate tasks efficiently, thus avoiding unnecessary delays.
3. Streamline the workflow process to identify dependencies and non-dependencies among activities and arrange them for optimal productivity.
4. Use a real-time tracking system that allows the rental clerk and mechanic to monitor each other's progress and coordinate accordingly.
5. Conduct regular reviews and training to ensure all staff understand the process and can perform their tasks efficiently.
6. Leverage technology, such as task management software or collaborative tools, to improve coordination and reduce waiting times.
7. Implement standard operating procedures to clearly define how tasks should be executed and in what order, reducing confusion and improving efficiency.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **3.3 Parallelism**: Implementing parallel processing where the "Prepare Contract" and "Prepare Car" activities can be done simultaneously involves executing tasks in parallel, as opposed to

sequentially, in a business process.

2. **4.6.2 Integral Technology**: Introducing a job scheduling system involves applying new technology to facilitate the exchange of information, potentially resulting in efficiency gains and enabling new possibilities for how business is conducted.

3. **4.3.1 Resequencing**:

4. **4.6.2 Integral Technology**: Using a real-time tracking system that allows the rental clerk and mechanic to monitor each other's progress involves applying new technology to overcome physical constraints, potentially resulting in efficiency gains and enabling new possibilities for how business is conducted.

5. **4.2.1.1 Specialist**: Conducting regular reviews and training to ensure all staff understand the process and can perform their tasks efficiently involves adjusting the ratio of specialists through training, leading to quicker work and higher quality.

6. **4.6.2 Integral Technology**:

7. **4.3.1 Resequencing**:

Successful Redesign Patterns

Parallelism

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 44

- 1) In a job application management process, final approval of job offers by senior management fails if there are issues regarding vacancy management, reconciliation of terms, or checking of documents.
- 2) In a university registrar's office process, receipt of payment is checked too late. Documents issued before matriculation is confirmed.

GPT's Solutions

1. Implement an automated system to cross-check vacancy management, terms reconciliation, and document verification before reaching senior management for approval, reducing the chances of failure.
2. Introduce a multi-stage approval process where each stage checks for specific issues, ensuring all issues are addressed before reaching the final approval stage.
3. Improve communication and collaboration between HR and senior management to quickly address any issues that might cause the final approval to fail.
4. Use a real-time tracking system to monitor the progress of job offer approvals and identify potential issues early.
5. For the university registrar's process, shift the payment receipt check to an earlier stage in the process to prevent issuing documents before matriculation is confirmed.
6. Implement an automated system that verifies payment receipt before proceeding to the document issuance stage.
7. Regularly review and refine both processes based on feedback and performance data to maintain their efficiency and effectiveness.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **4.6.1 Task Automation**: Implementing an automated system to cross-check vacancy

management, terms reconciliation, and document verification involves using technology to perform tasks that were previously done manually, aiming for faster execution, lower cost, and better results.

2. **3.2 Knock-out**:

3. **3.2 Knock-out**:

4. **4.6.2 Integral Technology**: Using a real-time tracking system to monitor the progress of job offer approvals involves applying new technology to facilitate the exchange of information, potentially resulting in efficiency gains and enabling new possibilities for how business is conducted.

5. **3.2 Knock-out**:

6. **4.6.1 Task Automation**: Implementing an automated system that verifies payment receipt before proceeding to the document issuance stage is another example of using technology to perform tasks that were previously done manually.

7. **8.3 Continuous Improvement**

Successful Redesign Patterns

Knock-out resequencing

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 45

- 1) When the business unit has excess capacity, i.e., if there are not enough client projects for present staff and staff utilization falls below the efficient utilization level.
- 2) In a human resource management process, in personnel administration section was noticed that approximately 30% of administrators are not utilized because of uneven distribution of workload. Hence, these resources are left idle.

GPT's Solutions

1. Develop a cross-training program so that staff with excess capacity can support other departments or projects, thereby increasing overall utilization.
2. Implement a dynamic workload distribution system in the HR process to ensure even distribution of tasks, thus minimizing idle resources.
3. Develop a job rotation plan that allows idle employees to work in other areas of the organization where there is a need for additional manpower.
4. Use real-time analytics to monitor staff utilization and redistribute work as necessary to ensure maximum efficiency.
5. Look for opportunities to upskill or reskill idle staff so they can take on new roles or tasks within the organization.
6. Implement project management tools to better manage projects and ensure efficient staff utilization.
7. Regularly review and refine workload distribution processes to address any inefficiencies and improve overall staff utilization.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****4.2.1.2 Generalist****: Developing a cross-training program involves providing more flexibility in task assignment and resource allocation, allowing for collaboration and sharing of findings.

2. ****4.6.2 Integral Technology****: Implementing a dynamic workload distribution system involves applying new technology to facilitate the exchange of information, potentially resulting in efficiency gains and enabling new possibilities for how business is conducted.
3. ****4.1.2 Flexible Assignment****: Developing a job rotation plan also involves providing more flexibility in task assignment and resource allocation, allowing for collaboration and sharing of findings.
4. ****4.6.2 Integral Technology****: Using real-time analytics to monitor staff utilization involves applying new technology to facilitate the exchange of information, potentially resulting in efficiency gains and enabling new possibilities for how business is conducted.
5. ****4.2.1.1 Specialist****: Looking for opportunities to upskill or reskill idle staff involves adjusting the ratio of specialists through training, leading to quicker work and higher quality.
6. ****4.6.2 Integral Technology****
7. ****8.3 Continuous Improvement****

Successful Redesign Patterns

Resource reallocation, Empower, Task automation

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 46

1) In out-patient process, there are several stations where the activities are performed reception desk, pharmacy, examination room, etc. The utilizations of Internal Medicine department and Pharmacy are very high: 9

7.4% and 9

6.4% respectively.

2) In a human resource management process, in the administration section of payment was noticed an overload of payroll technical support team.

GPT's Solutions

1. For the out-patient process, consider increasing the capacity of the Internal Medicine department and Pharmacy by hiring more staff, extending working hours, or expanding physical space.
2. Implement a queue management system to more efficiently manage patient flow and reduce the burden on highly utilized departments.
3. Use telemedicine or online prescription refill services to reduce the load on the pharmacy and Internal Medicine department.
4. For the human resource management process, consider cross-training other members of the administration team to provide support for payroll tasks.
5. Implement payroll software to automate certain aspects of payroll processing, thereby reducing the workload on the technical support team.
6. Consider outsourcing or using temporary staffing during peak payroll processing times to manage workload.
7. Regularly monitor and adjust workload distribution in both scenarios to ensure optimal utilization and prevent overloading.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **4.2 Extra resources**:
2. **4.6.2 Integral Technology**: Implementing a queue management system involves applying new technology to facilitate the exchange of information, potentially resulting in efficiency gains and enabling new possibilities for how business is conducted.
3. **4.2.4 Triage**:
4. **4.2.1.2 Generalist**:
5. **4.7.3 Interfacing**:
6. **4.1.6 Numerical Involvement**: Considering outsourcing or using temporary staffing during peak payroll processing times involves minimizing the number of departments, groups, and individuals involved in a business process, reducing the amount of time spent coordinating tasks and responsibilities.
7. **8.1 Workload Management**: Regularly monitoring and adjusting workload distribution in both scenarios to ensure optimal utilization and prevent overloading is another example of minimizing the number of departments, groups, and individuals involved in a business process.

Successful Redesign Patterns

Resource reallocation, Extra resources, Task automation, Integral Business Process Technology

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 47

In a process, there is an overloaded worker with too many activities to deal with, and in the meantime, other workers are waiting for the activities to be handed over.

GPT's Solutions

1. Implement a workload distribution system or tool to equally distribute tasks among workers, thereby relieving the overloaded worker and reducing wait times for others.
2. Cross-train other workers so they can take over some of the overloaded worker's tasks, improving overall efficiency and reducing dependency on one person.
3. Hire additional staff to handle the workload, if necessary and feasible.
4. Reevaluate the process to see if any tasks can be automated or eliminated to reduce the burden on the overloaded worker.
5. Encourage a collaborative work environment where employees can support each other when someone is overloaded.
6. Use real-time monitoring tools to identify workload imbalances and adjust task assignments promptly.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****4.6.2 Integral Technology****: Implementing a workload distribution system or tool involves applying new technology to facilitate the exchange of information, potentially resulting in efficiency gains and enabling new possibilities for how business is conducted.
2. **** 4.2.1.1 Specialist ****:
3. ****4.2 Extra resources****: Hiring additional staff to handle the workload also involves providing more flexibility in task assignment and resource allocation.
4. ****2.2 Task elimination****: Reevaluating the process to see if any tasks can be automated or eliminated involves using technology to perform tasks that were previously done manually, aiming

for faster execution, lower cost, and better results.

5.

8.1 Workload Management

6. **4.6.2 Integral Technology**: Using real-time monitoring tools to identify workload imbalances and adjust task assignments promptly is another example of applying new technology to facilitate the exchange of information.

Successful Redesign Patterns

Task automation, Integral Business Process Technology, Task elimination, Extra resources, Task elimination, Exception

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 48

- 1) In hotel reservation process, if customers wanted to change a hotel reservation, they first contacted the agent where they had made the booking. The agent forwarded the information to a salesperson or an operator who handed over the details to a product developer. After that, the product developer changed the reservation. To notify the customers, information from the product developer flew back to the agent through the salespersons/operators.
- 2) In a building permit process in a municipality, handovers exist between the subcontractor and a municipality each of which has a set of activities to perform (fragments).

GPT's Solutions

1. For the hotel reservation process, implement a direct online system where customers can make changes to their reservations, eliminating the need for information to go through multiple individuals.
2. Utilize a Customer Relationship Management (CRM) system that can automate notification to the customers about the changes made.
3. Create a centralized database where all changes can be updated in real-time and accessed by the necessary parties, reducing communication delays and errors.
4. For the building permit process, create an online portal where subcontractors can submit their documents and track the status of their permits.
5. Implement a digital workflow system in the municipality to streamline the process and reduce the need for handovers between the subcontractor and the municipality.
6. Regularly review and update these processes to identify potential inefficiencies and improve the overall customer experience.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****4.6.2 Integral technology****:
2. ****4.6.2 Integral technology****: By allowing customers to make changes to their reservations

directly online, control and input of information are moved from the hotel staff to the customers.

3. **4.1.3 Centralization**:

4. **4.1.3 Centralization**:

5. **4.6.2 Integral technology**:

6. **8.3 Continuous Improvement**

Successful Redesign Patterns

Task composition, Task elimination, Case manager, Empower

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 49

In all the supply chain process, every major decision was to be made by or approved by the corporate head office. This included decisions on pricing, manufacturing schedules, engineering support, and financing. Hence, the waiting time before the approval was achieved increased the lead time.

GPT's Solutions

1. Delegate decision-making authority to local managers for certain aspects of the process. This can reduce bottlenecks and shorten the lead time.
2. Implement an automated decision support system that can help make routine decisions, freeing up the corporate head office for more strategic decisions.
3. Set predefined guidelines or rules for certain decisions that could speed up the decision-making process.
4. Use digital collaboration tools that can expedite the process of seeking approvals from the corporate head office.
5. Implement regular training for managers at various levels so that they can make informed decisions without needing approval for every step.
6. Set up a real-time monitoring system to ensure that the delegated decision-making process is effective and within the defined guidelines.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **4.2.2 Empower**: Delegating decision-making authority to local managers empowers them to resolve issues and make decisions without the need for transferring tasks, hence making decision-making more efficient.
2. **4.6.1 Task Automation**: Implementing an automated decision support system involves using technology to perform tasks that were previously done manually, aiming for faster execution, lower

cost, and better results.

3. **8.2 Process Standardization**4. **4.6.2 Integral Technology**: Using digital collaboration tools involves applying new technology to facilitate the exchange of information, potentially resulting in efficiency gains and enabling new possibilities for how business is conducted.

5. **4.2.2 Empower** and **4.1.2 Flexible Assignment**: Implementing regular training for managers at various levels empowers them to make informed decisions and provides more flexibility in task assignment and resource allocation.

6. **4.6.2 Integral Technology**

Successful Redesign Patterns

Empower, Control addition

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 50

In a health service process, there is a problem of the so called three longs and one short issue. The three longs represents the long waiting time for registration, the long waiting time before seeing a doctor, and the long waiting time for buying drugs. Contrary to the three longs that may add up to two hours, one short indicates that the consult time with physicians is very short, usually around 3 to 5 minutes.

GPT's Solutions

1. Implement an online appointment system to reduce the waiting time for registration. This system should allow patients to select their preferred time slots.
2. Deploy a queue management system to manage patient flow more effectively and reduce waiting times.
3. Expand the pharmacy capabilities or use automated dispensing machines to reduce the time taken to dispense medication.
4. Employ more staff, including doctors and pharmacists, to handle high patient volumes and reduce wait times.
5. Train physicians to be more efficient in their consultations while ensuring they spend adequate time with each patient. This might involve the use of support tools or diagnostic aids.
6. Set up an information system that allows doctors to quickly access patient information, allowing them to spend more time in actual consultation.
7. Consider telemedicine options for non-critical patients to reduce the load on in-person visits.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **4.6.2 Integral Technology**:
2. **4.6.2 Integral Technology**: Deploying a queue management system and setting up an information system for doctors are examples of applying new technology to streamline the process

and enhance service quality.

3. ****4.6.1 Task automation****: Employing more staff and training physicians to be more efficient in their consultations provides more flexibility in task assignment and resource allocation.
4. ****4.2 Extra resources****: Training physicians to be more efficient in their consultations empowers them to make more informed decisions and provide better care to patients.
5. ****4.2.1.1 Specialist****: Implementing an online appointment system moves control and input of information from the hospital staff to the patients, allowing them to select their preferred time slots.
6. ****1.1 Control Relocation****: Considering telemedicine options for non-critical patients allows for parallel processing, where in-person and virtual consultations can occur simultaneously, reducing the load on in-person visits.
7. ****4.2.4 Triage****

Successful Redesign Patterns

Task rescheduling, Extra resources, Parallelism, Task composition, Task decomposition, Integral Business Process Technology, Outsourcing

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 51

Risk rate of a process is calculated as probability * consequences. The probabilities are defined as a score assigned by the team of experts from very rare to frequent, they also define the consequences in terms of health and safety, economic impact, environmental impact and company reputation. For instance, a process has a minor risk if the process failure has the following consequences: discomfort, medication and/ or accidents can be resolved in 1-3 days; economic impact is <10,000 EUR; has minimal environmental impact and bares reputation losses within company boundaries. Conversely, a process with a catastrophic risk rate has the following consequences: lethal exposure or fatal accident in terms of health and safety; financial losses of >10 million EUR; causing permanent environmental damage and baring reputation losses at a national level. The product of the probability and consequence scores define the risk rate of the process.

GPT's Solutions

1. Establish a robust risk management system that includes regular risk assessments, mitigation planning, and risk monitoring.
2. Train employees to identify and report risks in real-time, thus contributing to early detection and prevention of process failures.
3. Implement safety measures and protocols that reduce the probability of catastrophic risks.
4. Enhance financial management strategies to limit the financial impact of potential risks.
5. Adopt sustainable practices to minimize environmental damage and align with global sustainability goals.
6. Develop a crisis communication plan to manage potential reputation losses effectively.
7. Invest in insurance coverage for high-risk processes to help mitigate economic losses in case of a process failure.
8. Use technology, such as AI and machine learning, to predict potential risks and their consequences based on historical data.
9. Implement regular audits of the processes to ensure that they are functioning as per the defined

standards and guidelines.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

- 1. **4.6.2 Integral Technology**:
- 2. **4.6.2 Integral Technology**: Establishing a robust risk management system and using AI for risk prediction are examples of applying new technology to enhance the quality and efficiency of risk management.
- 3. **8.2 Process Standardization**
- 4. **8.3 Continuous Improvement**
- 5. **8.3 Continuous Improvement**
- 6. **8.3 Continuous Improvement**
- 7. **4.2 Extra resources**
- 8. **4.6.2 Integral Technology**:
- 9. **8.3 Continuous Improvement**

Successful Redesign Patterns

Extra resources, Resource reallocation

If "GPT's Solutions" contains "Successful Redesign Patterns"

no

Case 52

- 1) In a SIM card ordering process, depending on the SIM card type, the procurement process differs, which further complicates the follow-up of the entire supply chain process.
- 2) In a patient intake process, there are two types of cases: 1. new cases, 2. cases for which both intake interviews have taken place.

GPT's Solutions

1. Implement a unified procurement system that can manage the procurement of different types of SIM cards. This could include centralized tracking and analytics to simplify the follow-up process.
2. Use a classification system to categorize SIM cards based on type, and map each type to its respective procurement process for easy referencing and efficient handling.
3. Invest in supply chain management software to manage and monitor the entire supply chain process effectively.
4. In the patient intake process, create separate workflows for new cases and cases where intake interviews have already taken place. This will ensure each case type is managed effectively according to its unique requirements.
5. Use a patient management system to track the progress of each case, from intake interview to eventual resolution. This system could also provide alerts or notifications when key stages in the process are reached.
6. Regular training and updates for staff to ensure they are aware of the different processes and can handle them effectively.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **4.7.3 Interfacing**:
2. **8.2 Standardization**:
3. **4.2 Extra resources**:

4. **4.4.1 Order assignment**:

5. **Integral technology**:

6. **4.2.1.1 Specialist & 4.2.1.2 Generalist**: Regular training and updates for staff to handle different processes effectively involves adjusting the ratio of specialists and generalists through training.

Successful Redesign Patterns

Variant elimination, Extra resources, Exception

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 53

In replenishment and cross-docking in the automotive industry: No visibility is possible on the operational process, which creates a real difficulty in the management and synchronization of physical flows, between the suppliers and the plant.

GPT's Solutions

1. Implement a digital tracking system that can provide real-time updates about the status of supplies. This can help to improve visibility throughout the entire supply chain process.
2. Automate parts of the process that can be automated, for instance, inventory management. This can reduce errors and increase efficiency.
3. Establish a shared digital platform for suppliers and the plant to communicate and synchronize their activities. This can improve cooperation and help to prevent delays or misunderstandings.
4. Conduct regular audits of the process to identify potential bottlenecks and areas for improvement.
5. Implement advanced analytics to anticipate supply chain issues and help with decision-making. This could include predicting potential supply issues based on factors like weather and historical data.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****4.6.2 Integral technology****:
2. ****4.6.1 Task automation****:
3. ****4.1.3 Centralization****: Establishing a shared digital platform for suppliers and the plant to communicate and synchronize their activities involves using a standardized interface with partners to streamline communications and processes.
4. ****8.3 Continuous Improvement****
5. ****4.6.2 Integral technology****

Successful Redesign Patterns

integral Business Process Technology

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 54

In assembly process, there are several assembly lines with different level of saturation: some of them are undersaturated, whereas others perform at a highest capacities.

GPT's Solutions

1. Reallocate tasks between assembly lines in a balanced way, distributing workload equally to optimize resource utilization.
2. Investigate the possibility of cross-training workers so they can operate in multiple assembly lines. This flexibility can help to adjust manpower according to the load of each line.
3. Consider investing in automation or advanced machinery for the high capacity lines to increase their efficiency and throughput.
4. Implement a real-time monitoring system to track the saturation level of each assembly line, enabling swift adjustments and reassignments when necessary.
5. Periodically analyze the performance of each line and identify bottlenecks or inefficiencies that can be addressed to improve overall performance.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****8.1 Workload Management****:
2. ****4.2.1.2 Generalist****:
3. ****4.6.1 Task automation****:
4. ****8.1 Workload Management****:
5. ****4.5.1 Control addition****:

Successful Redesign Patterns

Resource reallocation

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 55

1) In healthcare in a computed tomography scan diagnostics process, the throughput is the number of patients per time unit that is treated. Taking into account the demand rate, the throughput is low meaning that few customers get the service and a long order queue appears.

2) The increasing in demand rate rushes the production process with large number of customer orders, which overloads its machines and labors and sometimes causes bottlenecks and large buffers between workstations. Labor utilization is also influenced by changing labor capacity under these conditions.

GPT's Solutions

1. Implement a booking system to schedule computed tomography scans and evenly distribute patients throughout the day. This reduces queues and increases patient satisfaction.
2. Invest in additional equipment and train more staff to handle computed tomography scans to meet demand and reduce waiting times.
3. Analyze the process to identify bottlenecks and make necessary changes in the workflow to improve throughput.
4. Use an automated system to optimize scheduling and ensure labor and machine utilization are balanced. This will help to prevent overloading and reduce bottlenecks.
5. In the production process, apply lean methodologies to reduce waste and streamline operations. Consider introducing more shifts or overtime to handle peak demand periods.
6. Install predictive analytics to forecast demand and align production scheduling accordingly to avoid overloading resources.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **4.6.1 Task Automation**: Implementing a booking system and using an automated system for scheduling involves using technology to perform tasks that were previously done manually, aiming

for efficiency gains.

2. **4.2 Extra Resources**: Investing in additional equipment and training more staff involves adding more resources to improve capacity and potentially flexibility.

3. **4.6.2 Integral Technology**:

4. **4.6.1 Task Automation**:

5. **2.2 Task elimination**:

6. **8.1 Workload Management**:

Successful Redesign Patterns

Extra resources, Task automation, Integral Business Process Technology, Task elimination, Exception

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 56

1) In healthcare in a computed tomography scan diagnostics process, the throughput is the number of patients per time unit that is treated. Taking into account the demand rate, the throughput is low meaning that few customers get the service and a long order queue appears.

2) The increasing in demand rate rushes the production process with large number of customer orders, which overloads its machines and labors and sometimes causes bottlenecks and large buffers between workstations. Labor utilization is also influenced by changing labor capacity under these conditions.

GPT's Solutions

1. Introduce a patient appointment system for diagnostics to manage patient flow, avoid overcrowding and reduce wait times.
2. Upgrade or add new diagnostic equipment to increase the capacity and efficiency of the process.
3. Optimize staff scheduling based on demand patterns to ensure adequate staffing during peak times.
4. Consider creating separate lines or divisions for different types of diagnostics, if applicable, to reduce bottlenecks.
5. Implement a lean process improvement methodology to identify and eliminate waste, increase efficiency, and improve throughput.
6. Invest in an automated system that dynamically allocates resources based on real-time demand, reducing overloading and increasing labor utilization.
7. Perform regular maintenance of machines to ensure they operate at maximum efficiency.
8. Invest in training for staff to increase their skill level and versatility, allowing for greater flexibility in task assignment.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **4.6.1 Task Automation**: Introducing a patient appointment system and investing in an automated system for dynamic resource allocation involves using technology to perform tasks that were previously done manually, aiming for efficiency gains.
2. **4.2 Extra Resources**: Upgrading or adding new diagnostic equipment involves adding more resources to improve capacity and potentially flexibility.
3. **4.3.1 Resequencing**:
4. **4.4.1 Order assignment**: Creating separate lines or divisions for different types of diagnostics isolates exceptional orders, preventing them from disrupting normal operations.
5. **2.2 Task elimination**:
6. **4.6.1 Task automation**:
7. **4.5.1 Control addition**:
8. **4.2.1.1 Specialist & 4.2.1.2 Generalist**: Investing in training for staff to increase their skill level and versatility involves adjusting the ratio of specialists and generalists through training, leading to quicker work and higher quality.

Successful Redesign Patterns

Extra resources, Task automation, Integral Business Process Technology, Task elimination, Exception

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 57

1) Support service call center experiences two peak periods (from 10:00 to 11:30 a.m. and 2:00 to 4:00 p.m.) during the day. The employees are unable to process all the calls themselves during these hours. There were two other agents employed primarily for call dispatch in the same call center in order to back-up the core employees when they are all busy answering calls during the peak hours. In addition, the supervisor would also answer the incoming calls when all the agents are busy answering calls.

2) In a healthcare recovery ward process, end of day work shift (3:45 p.m.) and end of surgery time put pressure on nurses in the afternoon, making them postpone admissions to the care unit, sometimes during the evening work shift.

GPT's Solutions

1. Analyze call volume and call duration data to optimize staffing schedules to meet demand during peak hours. Consider additional part-time staff or flexible shifts to handle these periods.
2. Implement an automated call distribution system that efficiently routes calls to available agents and offers call-back options during peak hours.
3. Utilize a call management system that allows for monitoring and managing of call queues to ensure timely responses.
4. Train all call center employees, including dispatchers and supervisors, to handle calls to increase the call handling capacity during peak times.
5. Review and optimize the current scheduling of surgeries to better distribute the workload throughout the day.
6. Consider hiring additional nursing staff or implementing a flexible shift schedule to meet the high demand at the end of the day.
7. Utilize a patient management system that can anticipate and manage patient flow, reducing the pressure on nurses.
8. Implement processes to efficiently transition patients from surgery to the care unit, perhaps with

the help of dedicated transition teams.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****4.2 Extra Resources****: Analyzing call volume and call duration data to optimize staffing schedules and considering additional part-time staff involves adding more resources to improve capacity and potentially flexibility.
2. ****4.6.1 Task Automation****: Implementing an automated call distribution system and utilizing a patient management system involves using technology to perform tasks that were previously done manually, aiming for efficiency gains.
3. ****4.6.2 Integral technology****:
4. ****4.2.1.1 Specialist****:
5. ****4.5.1 Control addition****:
6. ****4.2 Extra Resources****:
7. ****4.6.2 Integral technology****:
8. ****4.2.4 Triage****

Successful Redesign Patterns

Arrival rate pattern change, Generalization, Work shift change, Scheduling

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 58

In a credit contract assignment and handling process, important contracts are assigned to temporary workers rather than to company collaborators that have better experience and skills.

GPT's Solutions

1. Create a robust employee training program to ensure all temporary workers are up-to-date with company practices and standards.
2. Develop a clear policy for contract assignment based on complexity, importance, and employee skill and experience level.
3. Make sure that critical or complex contracts are reviewed and approved by experienced staff or management.
4. Consider implementing a mentoring system where less experienced or temporary workers are paired with a seasoned employee to guide them.
5. Develop a skills matrix to properly identify and utilize the capabilities of all workers, including temporary ones.
6. Invest in a contract management system that can automatically assign contracts based on predefined criteria such as contract importance and worker's experience.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****4.2.1.1 Specialist & 4.2.1.2 Generalist****: Creating a robust employee training program involves adjusting the ratio of specialists and generalists through training, leading to quicker work and higher quality.
2. ****4.1.2 Flexible Assignment****: Developing a clear policy for contract assignment based on complexity, importance, and employee skill and experience level maximizes flexibility for the near future by assigning tasks in a manner that preserves the availability of resources for other tasks.
3. ****4.1.2 Flexible Assignment****:

4. **4.2.1.1 Specialist & 4.2.1.2 Generalist**:

5. **8.2 Standardization**:

6. **4.2 Extra resources**:

Successful Redesign Patterns

Specialization

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 59

Supply chain tracking process implies tracking for the confirmation and coordination of updated information regarding process status using phone calls and e-mail correspondence.

GPT's Solutions

1. Implement a real-time, digital supply chain management system that updates status information automatically.
2. Use supply chain visibility software to track and trace goods as they move through the supply chain. The system should alert relevant stakeholders about the status of goods and any delays or disruptions.
3. Establish electronic data interchange (EDI) for real-time information sharing with suppliers and partners.
4. Utilize IoT devices for real-time tracking and status updates of goods in transit.
5. Minimize phone calls and email correspondences by utilizing collaborative platforms or software that allows for real-time updates and communication.
6. Implement predictive analytics to foresee potential issues and take proactive measures.
7. Consider using blockchain technology for more transparent and secure tracking.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **4.6.1 Task Automation**: Implementing a real-time, digital supply chain management system, utilizing IoT devices, and minimizing phone calls and email correspondences through collaborative platforms involves using technology to perform tasks that were previously done manually, aiming for efficiency gains.
2. **4.6.2 Integral Technology**: Using supply chain visibility software, establishing EDI, and considering blockchain technology involves applying new technology to overcome physical constraints, potentially resulting in efficiency gains and enabling new possibilities for how business is

conducted.

3. **4.7.3 Interfacing**: Establishing electronic data interchange (EDI) for real-time information sharing involves using a standardized interface with partners to streamline communications and processes.

4. **4.6.2 Integral Technology**:

5. **1.2 Contact reduction**:

6. **4.6.2 Integral technology**:

7. **4.6.2 Integral technology**:

Successful Redesign Patterns

Integral Business Process Technology, Process automation, Numerical involvement

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 60

1) In chemical intermediates manufacturing process, Chromatography Data System (CDS) outputs are manually entered into the Laboratory Information Management System (LIMS) for calculation of the results. The approval process for chromatographic results takes place in the LIMS and not in the CDS.

Therefore if there are any issues, the analyst has to change systems to reevaluate the chromatographic data.

2) The Ministry has various information support systems for the same payment execution process which they need to maintain and pay for.

3) In a manufacturing process, a company uses two different data systems to manage manufacturing and requirement data, Manufacturing Data System and Requirements Data System respectively. These systems both require manual input each time that information is accessed. While these systems are important, they are classified as non-value-added because the systems can be deleted without disrupting process function.

GPT's Solutions

1. Integrate the Chromatography Data System (CDS) with the Laboratory Information Management System (LIMS) to allow for automatic data transfer and approvals. This would save analysts from switching between systems.

2. In the case of the Ministry, implement a single, comprehensive information support system that can handle all payment execution processes, reducing the costs and complications of maintaining multiple systems.

3. For the manufacturing process, consider a unified data management system that automatically syncs manufacturing and requirement data. This could reduce manual input and streamline data management, making the process more efficient and less prone to errors.

4. Employ API (Application Programming Interface) to ensure seamless data flow between different systems.

5. Introduce process automation to minimize manual tasks and improve data accuracy.
6. Implement a data governance policy to manage the data efficiently across different systems.
7. Use advanced analytics to derive actionable insights from the unified data.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **4.6.1 Task Automation**: Integrating the Chromatography Data System (CDS) with the Laboratory Information Management System (LIMS), introducing process automation, and employing API for seamless data flow involves using technology to perform tasks that were previously done manually, aiming for efficiency gains.
2. **4.6.2 Integral Technology**: Implementing a single, comprehensive information support system, employing API, and using advanced analytics involves applying new technology to overcome physical constraints, potentially resulting in efficiency gains and enabling new possibilities for how business is conducted.
3. **4.1.3 Centralization**: Implementing a single, comprehensive information support system and considering a unified data management system treats geographically dispersed resources as if they are centralized, often facilitated by a digital system.
4. **4.7.3 Interfacing**:
5. **4.6.1 Task Automation**:
6. **4.6.2 Integral Technology**:
7. **4.6.2 Integral Technology**

Successful Redesign Patterns

Relocation to one system, Tool elimination, Tool composition

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 61

The performance of a procurement process in a shipping industry showed that the lead time exceeded the performance standard. One of the causes was the lack of employees who are capable to manage and plan vessel maintenance.

GPT's Solutions

1. Increase the workforce: Hire more employees skilled in managing and planning vessel maintenance to speed up the procurement process and reduce lead time.
2. Training and development: Provide additional training for current employees to boost their skills in vessel maintenance management and planning.
3. Outsource maintenance planning: If feasible, consider outsourcing vessel maintenance to a specialized company, allowing in-house employees to focus on other crucial tasks.
4. Implement software: Introduce maintenance planning and management software to streamline and automate parts of the process.
5. Rework schedule: Reassess the schedule for vessel maintenance to ensure it doesn't interfere with procurement processes. This might involve conducting maintenance during off-peak periods or when vessels are less in demand.
6. Improve communication: Enhance communication and coordination between the procurement team and the maintenance team to ensure seamless scheduling and execution of tasks.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. ****4.2 Extra Resources****: Increasing the workforce by hiring more employees involves adding more resources to improve capacity and potentially flexibility.
2. ****4.2.1.1 Specialist & 4.2.1.2 Generalist****: Providing additional training for current employees involves adjusting the ratio of specialists and generalists through training, leading to quicker work and higher quality.

3. **4.7.2 Outsourcing**:
4. **4.6.2 Integral technology**:
5. **4.3.1 Resequencing**:
6. **8.6 Cross-functional Collaboration**

Successful Redesign Patterns

Extra resources, Resource reallocation

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 62

Due to the limited production capacities, the raw material suppliers are not able to provide the necessary amount of input in time for the production process to start with no delays. As a result, the process cycle time increase causing delays and customer dissatisfaction.

GPT's Solutions

1. Supplier Diversification: Find additional suppliers that can provide the necessary raw materials, thus ensuring that production does not get delayed due to a shortage.
2. Stockpile Raw Materials: Increase storage capacities and keep a larger inventory of necessary raw materials as a buffer to prevent delays when there are supply issues.
3. Advanced Ordering: Schedule raw material orders well in advance based on production forecasts to compensate for the supplier's limited production capacity.
4. Long-term Contracts: Consider negotiating long-term contracts with suppliers for guaranteed delivery volumes to secure the necessary raw materials.
5. Improve Supply Chain Visibility: Implement advanced tracking and forecasting tools to anticipate supply issues in advance and take corrective action.
6. Supplier Development: Collaborate with suppliers to improve their capacity and reliability. This can be done through financial support, technical assistance, or training.

Classification of GPT's Solutions

For the redesign options proposed, the following heuristics were used:

1. **4.2 Extra Resources**: Supplier diversification and stockpiling raw materials involve adding more resources to improve capacity and potentially flexibility.
2. **4.5.2 Buffering**:
3. **4.2 Extra Resources**:
4. **4.7.1 Trusted party**5. **4.6.2 Integral Technology**: Implementing advanced tracking and forecasting tools involves applying new technology to overcome physical constraints, potentially

resulting in efficiency gains and enabling new possibilities for how business is conducted.

6. ****4.7.1 Trusted party****

Successful Redesign Patterns

Inventory buffering

If "GPT's Solutions" contains "Successful Redesign Patterns"

no

Case 63

In an order-to-delivery process, where the delivery delays were observed, one of the main causes of defects and, thus, a delivery delay was negligence of operators.

GPT's Solutions

1. Training and Development: Implement a comprehensive training program for operators to ensure they understand the importance of their roles and the consequences of negligence. Regular refresher courses can also help keep the importance of diligence top of mind.
2. Standardized Procedures: Develop clear and detailed procedures for each task in the process to minimize room for error. Include step-by-step instructions, guidelines, and best practices in these procedures.
3. Performance Monitoring: Regularly monitor and evaluate operator performance. Immediate feedback on performance can help to prevent ongoing issues and increase operator awareness.
4. Employee Engagement: Improve employee engagement by fostering a positive work environment. This can help reduce negligence by increasing job satisfaction and commitment.
5. Process Automation: Consider automating certain aspects of the order-to-delivery process that are prone to human error. Automation can help reduce defects and ensure more consistent output.
6. Incentive Programs: Implement incentive programs to reward operators for consistent high-quality performance. This can motivate operators to pay greater attention to their tasks.

Classification of GPT's Solutions

1. ****4.2.1.1 Specialist and 4.2.1.2 Generalist****: Training and Development and Employee Engagement can be related to adjusting the ratio of specialists and generalists through training, which leads to quicker work and higher quality, and adds flexibility to the business process (Page 1).
2. ****8.2 Standardization****:
3. ****4.5.1 Control addition****: Performance Monitoring can be related to Control addition, which involves integrating checks into a business process to ensure the completeness and correctness of

incoming materials as well as verifying the output before it is sent to customers (Page 1).

4. ****8.4 Advocacy Management****

5. ****4.6.1 Task Automation****: Process Automation corresponds to Task Automation, which involves using technology to perform tasks that were previously done manually, with the aim of executing them faster, at a lower cost, and with better results (Page 2).

6. ****8.4 Advocacy Management****

Successful Redesign Patterns

Staff training, Staff change

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 64

- 1) Record keeping and IT management do not fulfill the growing demands for support from the operational workforce.
- 2) The manufacturing process analysis has constraints in the IT system that limited the development cycle time, i.e. made it impossible to reduce the cycle time due to technology capacity level.

GPT's Solutions

1. IT Infrastructure Upgrades: Invest in modern, scalable technology infrastructure that can better support the needs of the operational workforce. This may include more robust servers, improved networking equipment, and faster computers.
2. IT Support Staff: Increase the size of the IT support team to handle the increased demand for support from the operational workforce. This could include hiring more IT staff or outsourcing some IT functions to a third-party provider.
3. IT Training: Provide regular training for the operational workforce on how to use the IT systems effectively and efficiently. This could include workshops, online tutorials, or one-on-one coaching.
4. Technology Adoption: Adopt advanced technologies such as machine learning, artificial intelligence, or process automation tools that can optimize the manufacturing process and reduce the development cycle time.
5. Process Improvement: Implement a continuous improvement program to identify and eliminate inefficiencies in the manufacturing process. This could involve a formal program like Lean or Six Sigma, or a more informal approach to process improvement.
6. Vendor Management: Engage with IT system vendors to explore options for system upgrades or enhancements that could improve process efficiency and reduce cycle time.

Classification of GPT's Solutions

1. ****4.6.2 Integral Technology****: IT Infrastructure Upgrades can be associated with Integral Technology, which involves applying new technology to overcome physical constraints, potentially

resulting in efficiency gains and enabling new possibilities for how business is conducted (Page 0).

2. **4.7.2 Outsourcing**: IT Support Staff can be related to Outsourcing, which involves delegating a business process or parts of it to a third party who might perform it more efficiently (Page 0).

3. **4.2.1.1 Specialist and 4.2.1.2 Generalist**: IT Training can be related to adjusting the ratio of specialists and generalists through training, which leads to quicker work and higher quality, and adds flexibility to the business process (Page 1).

4. **4.6.2 Integral Technology**:

5. **8.3 Continuous Improvement**:

6. **4.7.1 Trusted Party**: Vendor Management can be associated with using a Trusted Party, which involves relying on information or assessments provided by a reputable third party, rather than independently verifying or generating the information (Page 1).

Successful Redesign Patterns

New tool, Extra resources

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 65

1) Frequent machine breakdowns.

2) In flight ticket request process, travel agency relies heavily on individual agents and airline website. In some cases, when the agents or airline website are temporary out of service, it will halt the whole processes at the travel agency which usually resulted in customer dissatisfaction.

GPT's Solutions

1. Regular Machine Maintenance: Implement a regular preventive maintenance schedule to reduce machine breakdowns. This can involve routine checks and servicing, predictive maintenance using machine learning algorithms, or using IoT devices for real-time machine health monitoring.

2. Machine Upgrade or Replacement: Consider upgrading the machines to more reliable and efficient models, or replacing them if they're too old. An investment in better equipment can increase productivity, reduce downtime, and improve product quality.

3. Use Multiple Ticketing Platforms: To avoid dependency on individual agents and a single airline website, integrate multiple ticketing platforms into the agency's system. This can provide backup options in case one platform is unavailable and ensure the continuity of services.

4. Contingency Plan: Establish a robust contingency plan to handle situations when agents or airline websites are out of service. This might include having backup agents on call or alternative methods for booking flights.

5. Improve Customer Communication: Keep customers informed during service interruptions and provide them with options. Transparent communication can mitigate customer dissatisfaction during disruptions.

6. Employee Training: Regularly train staff on handling service disruptions, managing customer expectations, and navigating alternate booking platforms.

Classification of GPT's Solutions

1. ****4.5.1 Control addition****:

2. **4.2 Extra resources**:
3. **4.5.2 Buffering**:
4. **4.1.7 Case Manager**:
5. **4.1.5 Customer Teams**:
6. **4.2.1.1 Specialist and 4.2.1.2 Generalist**: Employee Training can be related to adjusting the ratio of specialists and generalists through training, which leads to quicker work and higher quality, and adds flexibility to the business process (Page 1).

Successful Redesign Patterns

New tool, Integral Business Process Technology

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 66

In an airport transportation scheduling process, forecasted arrivals and departures schedule was produced by means of several tools including the franchise reservation system and the sales system, using historical data from prior weeks and months, and input from various department heads. The actual occupancy often exceeded the forecast because of the failure of the sales system to accurately report actual group rooms expected. Hence, the system produced incorrect results - expected schedules with low accuracy.

GPT's Solutions

1. System Upgrade: Consider upgrading the current sales system to a more reliable and accurate one. This can ensure the accurate reporting of actual group rooms expected, thereby increasing the accuracy of the forecast.
2. Integrative Forecasting System: Develop or implement an integrative forecasting system that pulls data from all relevant tools and departments. This system should be designed to handle variations and inconsistencies in data, thereby improving forecast accuracy.
3. Machine Learning Algorithms: Employ advanced machine learning algorithms for predicting arrivals and departures. These algorithms can learn from past inaccuracies and improve future predictions.
4. Real-time Updates: Implement a system that allows for real-time updates of occupancy data. This can help in adjusting the forecast dynamically as the actual data changes.
5. Training: Ensure that the department heads and staff members who input data into the system are properly trained. This can help in reducing errors and improving the accuracy of the forecast.
6. Regular Auditing: Conduct regular audits of the forecasting process to identify and rectify any systematic errors or inefficiencies.

Classification of GPT's Solutions

1. ****4.6.2 Integral Technology****: System Upgrade can be associated with Integral Technology,

which involves applying new technology to overcome physical constraints, potentially resulting in efficiency gains (Page 0).

2. **4.6.2 Integral Technology**:

3. **4.6.2 Integral Technology**4. **4.6.2 Integral Technology**5. **4.2.1.1 Specialist and 4.2.1.2 Generalist**: Training can be related to adjusting the ratio of specialists and generalists through training, which leads to quicker work and higher quality, and adds flexibility to the business process (Page 1).

6. **4.5.1 Control Addition**: Regular Auditing can be associated with Control Addition, which involves integrating checks into a business process to ensure the completeness and correctness of incoming materials as well as verifying the output before it is sent to customers (Page 1).

Successful Redesign Patterns

Control addition

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 67

In the assembly line, a huge amount of inventory was observed, which causes excessive warehouse usage and implies high storage costs.

GPT's Solutions

1. Implement Just-in-Time Production: This strategy aims to minimize inventory levels by producing goods only in response to customer orders, thus reducing storage costs.
2. Optimize Order Quantities: Use techniques like Economic Order Quantity (EOQ) to determine the most cost-effective amount of inventory to order at a time.
3. Streamline Inventory Management: Use inventory management software that can predict demand, automate restocking, and optimize warehousing space.
4. Improve Supplier Relationships: By developing strong relationships with suppliers, the business can ensure timely delivery of materials, reducing the need for large safety stocks.
5. Use a Kanban System: This is a visual system for managing work as it moves through a process, helping to manage inventory levels more effectively.
6. Re-evaluate Product Design: If possible, consider designing products in a way that allows for components to be shared across different products, reducing the variety of inventory needed.
7. Regular Inventory Audits: Perform regular audits to get rid of obsolete or excess stock, reducing the unnecessary storage costs.

Classification of GPT's Solutions

1. ****2.3 Order-based work****:
2. ****4.6.2 Integral Technology****:
3. ****4.6.1 Task Automation****: Streamline Inventory Management can be associated with Task Automation, which involves using technology to perform tasks that were previously done manually, with the aim of executing them faster, at a lower cost, and with better results (Page 2).
4. ****4.7.1 Trusted Party****: Improve Supplier Relationships can be related to using a Trusted Party,

which involves relying on information or assessments provided by a reputable third party, rather than independently verifying or generating the information (Page 1).

5. **4.7.3 Interfacing**:

6. **4.6.2 Integral Technology**: Re-evaluate Product Design can be related to Integral Technology, which involves applying new technology to overcome physical constraints, potentially resulting in efficiency gains (Page 0).

7. **4.5.1 Control Addition**: Regular Inventory Audits can be associated with Control Addition, which involves integrating checks into a business process to ensure the completeness and correctness of incoming materials as well as verifying the output before it is sent to customers (Page 1).

Successful Redesign Patterns

Waste elimination

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 68

Parallel-running document flows, one consisting of paper-based archival documents, the other of digitized archival documents.

GPT's Solutions

1. Integrate the parallel-running document flows into a single flow by digitizing all paper-based archival documents, making the process more streamlined and efficient.
2. Implement a Document Management System (DMS) to store, manage, and track both paper-based and digitized archival documents. This would reduce the need for physical storage space and improve document retrieval times.
3. Set up an Optical Character Recognition (OCR) system for converting paper-based archival documents into editable and searchable digital formats, which can then be stored in the DMS.
4. Establish a process for regular scanning and digitization of new paper-based archival documents to ensure the system remains current and reduces the reliance on physical documents.
5. Introduce version control to maintain the integrity of the documents, so that any changes made to the digitized documents are tracked and recorded.
6. Train staff on how to use the DMS and OCR system to ensure that they can effectively manage the documents in the new integrated system.
7. Periodically review and update the process to incorporate new technologies or practices that may further enhance efficiency and effectiveness.

Classification of GPT's Solutions

1. **4.6.2 Integral technology**
2. **4.6.2 Integral technology**
3. **4.6.2 Integral technology**
4. **4.6.2 Integral technology**
5. **4.5.1 Control addition**

6. ****4.2.1.1 Specialist****

7. ****4.5.1 Control addition****

Successful Redesign Patterns

Data flow composition, Data flow elimination, Integral Business Process Technology

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 69

Documentation is all in paper form and transported physically between Sectors or employees of the Ministry in a payment execution process.

GPT's Solutions

1. Digital Transformation: Transition to digital documents and stop using paper forms. This can significantly speed up the process and eliminate physical transportation of documents.
2. Implement a Document Management System (DMS): A DMS can store, manage, and track electronic documents, simplifying the process and reducing potential for errors.
3. Employee Training: Provide necessary training to employees to get them up to speed with the new digital process. This should cover how to use the DMS and handle electronic documents.
4. Implement a Digital Signature Solution: Use a digital signature solution to sign and authenticate documents, eliminating the need for physical signatures.
5. Create a Backup Strategy: Ensure that all digital data is regularly backed up and secure, to prevent any data loss.
6. Initiate a Green Initiative: Communicate the positive environmental impact of reducing paper usage to employees, to create a culture of sustainability.
7. Dispose of old Paper Documents: Once all necessary documents have been digitized and securely stored, establish a plan to safely dispose of old paper documents.

Classification of GPT's Solutions

1. ****4.6.2 Integral Technology****: Digital Transformation can be associated with Integral Technology, which involves applying new technology to overcome physical constraints, potentially resulting in efficiency gains (Page 0).
2. ****4.6.2 Integral Technology****:
3. ****4.2.1.1 Specialist and 4.2.1.2 Generalist****: Employee Training can be related to adjusting the ratio of specialists and generalists through training, which leads to quicker work and higher quality,

and adds flexibility to the business process (Page 1).

4. **4.6.2 Integral Technology**5. **4.5.2 Buffering**:

6. **8.4 Advocacy Management**

7. **2.2 Task Elimination**: Dispose of old Paper Documents can be associated with Task Elimination, which is a strategy that involves removing unnecessary tasks from a business process (Page 0).

Successful Redesign Patterns

Data flow automation, Integral Business Process Technology

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 70

In a pharmacy ordering and dispensing process, patients waiting from the moment they arrive to the pharmacy when they can start using pharmacy services.

GPT's Solutions

1. Online Booking: Introduce an online appointment system that allows patients to select their preferred time slot to visit the pharmacy, reducing waiting times.
2. Self-service Kiosks: Implement self-service kiosks for quicker check-in when patients arrive, reducing manual efforts from pharmacy staff.
3. SMS or App Notifications: Use technology to inform patients when it's their turn, so they can wait outside or in their cars, reducing crowding in the pharmacy.
4. Streamline Processes: Review the pharmacy process for any inefficiencies. This could involve reorganizing the workspace for more effective service, or introducing more efficient methods of locating and dispensing medication.
5. Hire Additional Staff: During peak hours, the addition of more staff could help in reducing the waiting time.
6. Automated Prescription Dispensing Systems: Introducing automated prescription dispensing systems can reduce the manual effort in dispensing the medication and hence decrease the wait time for patients.
7. Use of Mobile Apps: Patients can place their orders through mobile apps before they arrive, speeding up the process.
8. Training: Proper training should be provided to the pharmacy staff to ensure efficient handling of tasks.

Classification of GPT's Solutions

1. **4.7.3 Interfacing**: Online Booking can be associated with Interfacing, which involves using a standardized interface with customers and partners to streamline communications and processes

(Page 0).

2. **4.6.1 Task Automation**: Self-service Kiosks can be related to Task Automation, which involves using technology to perform tasks that were previously done manually, with the aim of executing them faster, at a lower cost, and with better results (Page 2).
3. **8.3 Continuous Improvement**:
4. **2.2 Task Elimination**: Streamline Processes can be related to Task Elimination, which is a strategy that involves removing unnecessary tasks from a business process (Page 0).
5. **4.2 Extra resources**:
6. **4.6.1 Task Automation**: Automated Prescription Dispensing Systems can be related to Task Automation, which involves using technology to perform tasks that were previously done manually, with the aim of executing them faster, at a lower cost, and with better results (Page 2).
7. **4.7.3 Interfacing**: **4.6.2 Integral technology**
8. **4.2.1.1 Specialist and 4.2.1.2 Generalist**: Training can be related to adjusting the ratio of specialists and generalists through training, which leads to quicker work and higher quality, and adds flexibility to the business process (Page 1).

Successful Redesign Patterns

Extra resources, Specialization, New method, Exception, Outsourcing

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 71

The software is restricted to the order fulfilment process, without having any connection to the up(Customer service) and downstream processes (Product management, Sales). Each process uses different tools, such as Excel sheets or proprietary tools, e.g. for the sales support, without dedicated interfaces.

GPT's Solutions

1. Integration of Systems: Implement an Enterprise Resource Planning (ERP) system or similar, which can integrate all different processes (Customer service, Order fulfilment, Product management, Sales) into one cohesive system. This would allow real-time visibility of all process data and improve process efficiency.
2. Standardization: Standardize the tools and software used across all processes. This eliminates the need for different interfaces and reduces the risk of data discrepancies or loss.
3. Automation: Automate data transfer and synchronization between the different tools. This can be achieved through APIs or data integration tools.
4. Training: Provide training to employees to ensure they understand and can efficiently use the integrated system.
5. Process Review: Regularly review and update the system to ensure it stays relevant to the needs of the processes and reflects any changes in the business environment.
6. Cloud-Based Solutions: Consider implementing cloud-based solutions, which often come with the ability to integrate various systems and tools, enhancing accessibility and real-time collaboration.
7. Data Governance: Implement a robust data governance strategy to ensure data consistency and quality across all tools and processes.

Classification of GPT's Solutions

1. **4.6.2 Integral Technology**: Integration of Systems can be associated with Integral Technology, which involves applying new technology to overcome physical constraints, potentially resulting in

efficiency gains (Page 0).

2. **8.2 Standardization**:

3. **4.6.1 Task Automation**: Automation can be associated with Task Automation, which involves using technology to perform tasks that were previously done manually, with the aim of executing them faster, at a lower cost, and with better results (Page 2).

4. **4.2.1.1 Specialist and 4.2.1.2 Generalist**: Training can be related to adjusting the ratio of specialists and generalists through training, which leads to quicker work and higher quality, and adds flexibility to the business process (Page 1).

5. **4.5.1 Control Addition**: Process Review can be related to Control Addition, which involves integrating checks into a business process to ensure the completeness and correctness of incoming materials as well as verifying the output before it is sent to customers (Page 1).

6. **4.1.3 Centralization**:

7. **4.7.3 Interfacing**

Successful Redesign Patterns

Integral Business Process Technology

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 72

In a packaging production process, the company has two separate production facilities that have different machines and storage locations. The production processes are distributed around the two facilities which results in a movements between the two plants.

Extrusion is done in Plant 1, Printing, Slitting and Lamination are located in Plant 2, and the final bagmaking station is located back in Plant

1.

GPT's Solutions

1. Process Redesign: Consolidate similar activities in one facility to minimize the need for back-and-forth movements. This could involve reorganizing the production line so that all activities that can be performed at one plant are completed there before moving on to the next plant.
2. Equipment Investment: Consider investing in more machines or equipment to allow each plant to have a more self-contained production process. For instance, equipping both Plant 1 and Plant 2 with the tools needed for Extrusion, Printing, Slitting, Lamination, and Bagmaking could eliminate the need to transfer materials between plants.
3. Digitalization: Implement a digital tracking system to streamline material movement between the plants, helping to reduce transport time and potentially identifying more efficient routes or schedules.
4. Resource Utilization: Evaluate the utilization of both plants. If one plant is under-utilized, consider moving some processes from the other plant to balance the workload and possibly reduce movement.
5. Lean Manufacturing: Implement lean manufacturing principles to minimize waste and increase efficiency. This could include using techniques such as just-in-time manufacturing to reduce the need for excessive movement.
6. Facility Expansion: If feasible, consider expanding one of the plants to house all stages of production, eliminating the need for movements between the plants.

Classification of GPT's Solutions

- 1. **1.3 Integration**:
- 2. **4.6.2 Integral Technology**: Equipment Investment can be related to Integral Technology, which involves applying new technology to overcome physical constraints, potentially resulting in efficiency gains (Page 0).
- 3. **4.6.2 Integral Technology**:
- 4. **1.3 Integration**:
- 5. **2.2 Task Elimination**:
- 6. **1.3 Integration**

Successful Redesign Patterns

Rescheduling, Waste elimination

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 73

In a university registrar's office process, the matriculation documents are prepared but then needed to be recalled.

GPT's Solutions

1. Document Verification: Improve document verification procedures before finalizing and issuing matriculation documents to reduce the instances of needing to recall them. This can involve double-checking details or automating some aspects of the process.
2. Digitalization: Implement a digital system for handling matriculation documents. This will allow easy recall, editing, and re-issuing of documents, without the need for physical recalls which can be time-consuming and inefficient.
3. Staff Training: Enhance training for the staff who prepare matriculation documents to ensure they understand the importance of accuracy and the consequences of mistakes.
4. Improve Communication: Foster better communication between different offices and departments involved in the matriculation process. This could help to identify and correct errors earlier in the process.
5. Quality Control: Institute a quality control step in the matriculation process where another member of the staff reviews the documents before they are issued. This could help catch errors and reduce the need for recalls.
6. Feedback Mechanism: Create a feedback loop for errors, so that common mistakes can be identified and targeted for improvement in the process.

Classification of GPT's Solutions

1. **4.5.1 Control Addition**: Document Verification can be associated with Control Addition, which involves integrating checks into a business process to ensure the completeness and correctness of incoming materials as well as verifying the output before it is sent to customers (Page 1).
2. **4.6.1 Task Automation**: Digitalization can be associated with Task Automation, which involves

using technology to perform tasks that were previously done manually, and Interfacing, which involves using a standardized interface with customers and partners to streamline communications and processes (Pages 2 and 0).

3. ****4.2.1.1 Specialist and 4.2.1.2 Generalist****: Staff Training can be related to adjusting the ratio of specialists and generalists through training, which leads to quicker work and higher quality, and adds flexibility to the business process (Page 1).

4. ****8.6 Cross-functional Collaboration****5. ****4.5.1 Control Addition****: Quality Control can be related to Control Addition, which involves integrating checks into a business process to ensure the completeness and correctness of incoming materials as well as verifying the output before it is sent to customers (Page 1).

6. ****4.5.1 Control Addition****:

Successful Redesign Patterns

Control addition

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes

Case 74

In a manufacturing company, a process of creating sales forecasting resulted in non-accurate forecasts which impacted the production schedules and caused mismatch of production schedules with inventories to demand.

GPT's Solutions

1. Advanced Forecasting Tools: Utilize more sophisticated forecasting tools that use AI and machine learning to better predict sales based on historical data, trends, and market conditions.
2. Cross-Functional Collaboration: Enhance collaboration between sales, production, and supply chain teams to create a more holistic and accurate forecast.
3. Real-time Data: Leverage real-time sales data to make adjustments to the forecast and production schedules as necessary.
4. Market Research: Regularly conduct market research to understand demand trends and incorporate this information into the forecasting process.
5. Vendor Managed Inventory (VMI): Consider implementing a VMI system where suppliers manage inventory levels based on real-time sales data.
6. Training: Provide additional training to personnel responsible for sales forecasting to improve their skills and knowledge.
7. Sales and Operations Planning (S&OP): Implement a robust S&OP process to align supply and demand while considering the financial implications.
8. Scenario Analysis: Regularly conduct scenario analyses to prepare for various demand situations and to be able to respond quickly to changes in the market.
9. Customer Input: Include input from key customers in the sales forecasting process, especially for large, predictable orders.
10. Regular Review: Regularly review and adjust the forecasting process and methodologies to continually improve accuracy.

Classification of GPT's Solutions

1. **4.6.2 Integral Technology**: Advanced Forecasting Tools can be associated with Integral Technology, which involves applying new technology to overcome physical constraints, potentially resulting in efficiency gains (Page 0).
2. **8.6 Cross-functional Collaboration**3. **4.6.2 Integral Technology**4. **8.5 Forecasting**5. **4.7.1 Trusted party**:
6. **4.2.1.1 Specialist and 4.2.1.2 Generalist**: Training can be related to adjusting the ratio of specialists and generalists through training, which leads to quicker work and higher quality, and adds flexibility to the business process (Page 1).
7. **8.2 Standardization**:
8. **4.5.2 Buffering**
9. **8.5 Forecasting**
10. **4.5.1 Control Addition**: Regular Review can be related to Control Addition, which involves integrating checks into a business process to ensure the completeness and correctness of incoming materials as well as verifying the output before it is sent to customers (Page 1).

Successful Redesign Patterns

Activity addition, Data object addition, Integral Business Process Technology, Process automation, Control addition

If "GPT's Solutions" contains "Successful Redesign Patterns"

yes