

MTAT.03.231 – Business Process Management

Homework 1 (5 points)

Notes

- *To be completed individually or in pairs.*
- *Please submit a PDF file with your model via the course's homework submission system. You can use any process modeling tool you wish. Note that the PDF file may consist of multiple BPMN models – this is your choice.*
- *The solution will be assessed on the basis of:*
 - *Syntactic correctness (correct use of BPMN syntax)*
 - *Semantic correctness (the model and the description below match)*
 - *Readability of the model and use of modelling conventions introduced in class.*
- *The scenario below contains more information than you need to complete the homework. This is done on purpose. You need to separate what is relevant for modelling and what is not.*

Disability Insurance Claims Handling at InsureIT

Your task is to provide a BPMN model of the following business process for handling insurance claims for disability insurance¹ at an insurance company InsureIT.

The process starts when a customer lodges a disability claim. To do so, the customer fills in a form including a 2-page questionnaire describing the disability. The customer can submit the form physically at one of the branches of InsureIT, by postal mail, fax or simply via e-mail (digitally-signed document).

When a claim is received, a junior claims officer first enters the claim details into the insurance information system. Data entry usually takes 10 minutes. The same junior claims officer performs a basic check to ensure that the customer's insurance policy is valid and that the type of claim is covered by the insurance policy. It is rare for the claim to be rejected at this stage (it only happens in 2% of cases). Otherwise the claim is marked as “eligible” and moves forward in the process. Next, the claim is moved to a senior claims officer who performs an in-depth assessment of the reported disability and estimates the monthly benefit entitlement (i.e. how much monthly compensation is the claimant entitled to, and for what period of time).

In the case of short-term disability benefits, the senior claims handler can perform the benefit assessment without requiring further documentation. In these cases, the benefit assessment takes 20 minutes. Once a decision is made, the senior claims handler registers the entitlement on the insurance information system and informs the customer of the outcome via e-mail or postal mail.

¹ From Wikipedia: “Disability Insurance is a form of insurance that insures the beneficiary's earned income against the risk that a disability creates a barrier for a worker to complete the core functions of their work.”

However, in the case of long-term disability claims (more than three months), the senior claims handler requires a full medical report in order to assess the benefit entitlements. Senior claims handlers perceive that these medical reports are essential in order to assess the claims accurately and to avoid fraud. Once the senior claims handler has received the medical report, they can assess the benefits in about one hour on average. The senior claims handler then sends a response letter to the customer (by e-mail and post) to notify the customer of their monthly entitlement and the conditions of this entitlement (e.g. when will the entitlement be stopped or when is it due for renewal). The entitlement is recorded in the insurance information system.

Later, a finance officer triggers the first entitlement payment manually and schedules the monthly entitlement for subsequent months. The finance officer takes on average 20 minutes to handle an entitlement. Finance officers handle payments in batches, once per working day.

When a medical report is required, a junior claims handler contacts the customer (by phone or e-mail) to notify them that their claim is being assessed, and to ask the customer to send a signed form authorizing InsureIT to request medical reports from their health provider (hospital or clinic). Health providers will not issue a medical report to an insurance company unless the customer has signed such an authorization.

Once the authorization has been received, the junior claims handler sends (by post) a request for medical reports to the health provider together with the insurer's letter of authorization. Hospitals reply to InsureIT either by post or in some cases via e-mail. On average, it takes about 15 working days for InsureIT to obtain the medical reports from the health provider (including 4 working days required for the back-and-forth postal mail). This average however hides a lot of variance. Some health providers are very cooperative and respond within a couple of working days of receiving the request. Others however can take up to 30 working days to respond.

As a result, the average time between a claim being lodged and a decision being made is 3 working days in the case of short-term disability claims, and 20 working days for long-term disability claims.

Naturally, so long waiting times cause anxiety to customers. In the case of long-term disability claims, a customer would on average call or send an e-mail enquiry twice, while the disability claim is being processed. Such enquiries are answered by the junior claims handler and it takes about 10 minutes per enquiry. In about a third of cases, junior claims handlers end up contacting the health provider to enquire about the estimated date to obtain a medical report. Each of these enquiries to health providers takes 10 minutes to a junior claims handler.

The total benefit paid by the insurance company for a short-term disability is EUR 5K (typically spread across 2 or 3 months). For long-term disability, this amount is 20K, but some claims can cost up to 40K to the insurance company.

In case of long-term disability, the duration of the benefit (number of months) cannot be determined in advance when the claim is lodged. In these cases, the benefit is granted for a period of 1 to 3 months. The case is then reviewed by a senior claims officer after this initial period in order to determine if the benefit should be extended. In order to renew the benefit, the customer is required to fill in a benefit renewal request (a special form, which is simpler than the form for new claims). The renewal request is examined by a senior claims handler. Half of the benefit renewals are granted after a simple check, which takes 30 minutes to the senior claims handler. But

in the other half of renewals, the senior claims handler requires a new medical report. In this case, which means that the whole process of obtaining a medical report has to be repeated (except that the letter of authorization signed by the customer during the initial assessment can be reused). It often happens that the renewal takes too long and customers stop receiving their monthly benefit temporarily during the renewal process.

The insurance company receives 2000 disability claims per year, out of which 20% are for short-term disability and 80% for long-term disability.

The company employs two full-time junior claims handler and two full-time senior claims handler dedicated to disability insurance.

The performance of insurance companies is often measured in terms of the so-called *combined ratio*, which is the sum of claim payouts plus operational expenses (per year), divided by the sum of insurance premiums paid by customers (per year). The disability insurance unit of InsureIT has a combined ratio of 97%. As any other insurance company, InsureIT perceives investment income from the capital it retains.

InsureIT's sales department estimates that the extreme delays in handling disability claims costs EUR 50K per year to InsureIT in lost sales of insurance policies due to unsatisfied customers and the resulting negative publicity. In the past two years, InsureIT's Net Promoter Score (NPS) has dropped by 15 points (from 20 to 5) mainly due to customer dissatisfaction with customer service processes, including claims handling.

Given the persistent problems with obtaining health reports in a timely manner, claims handlers have tried to negotiate with several health providers a faster approach to obtain medical reports. A handful of health providers (the more cooperative ones) are willing to accept medical report requests by e-mail to save 2-3 working days. However, the majority of health providers do not see any incentive to put more resources into issuing medical reports for insurance companies. They perceive that their customers are the patients. The process of issuing medical reports to insurers is secondary for them.