

Degree in Management

Integrated Operations Management

Process Analysis

Case study
Casino Money-Handling Processes

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Case study Casino Money-Handling Processes:

Retrieving money from a slot machine is referred to as the *drop process*. The drop process begins with a security officer and the slot drop team leader obtaining the slot cabinets keys from the casino cashier's cage. Getting the keys takes about 15 minutes. The slot drop team consists of employees from the hard count coin room, security, and accounting. The slot drop leader, under the observation of a security officer and a person from accounting, actually removes the drop bucket from the slot cabinet. When the drop bucket is pulled from the slot cabinet, a tag with the proper slot machine number is placed on top of the coins to identify where that bucket came from when the weigh process begins. Retrieving the drop bucket takes about 10 minutes per slot machine. Once a cart is filled with buckets from 20 different slot machines, the drop team leader and security and accounting people deliver the buckets to the hard count room. The buckets are securely locked in the hard count room to await the start of the hard count process. Delivering and securing the buckets takes about 30 minutes per cart.

The hard count process is performed at a designated time known to gaming regulatory authorities. The hard count team first tests the weigh scale, which takes 10 minutes. The scale determined the dollar value, by denomination, for set weights of 10 and 25 pounds. These results are compared to calibration results, calculated when the scale was last serviced, to determine if a significant variance exists. If one does exist, the hard count supervisor must contact the contractor responsible for maintaining the scale and the controller's office. If no significant variance is found, the weigh process can continue.

Following the scale check, each drop bucket is emptied into the weigh scale holding hopper. Using information from the identification tag, the specific slot machine number from which the bucket originated is entered into the weigh scale computer. The weigh scale computer is programmed to convert the weight of coins, by denomination, into specific dollar values, which are recording in the weigh journal along with the slot machine number. The weighing and recording process takes seven minutes per bucket. Once the scale has weighed the contents of the drop bucket, the coins automatically drop onto a conveyor belt, which transports them to a canning station. Twenty-five silver dollars are wrapped in each roll at a rate of 10 rolls per minute.

At a canning station, the coins rolls are placed in metal or plastic cans that hold specific dollar amounts based on coin denomination. The cans are stacked to facilitate counting the wrapping coins. Silver dollar cans hold \$1,000, or 40 rolls, and take five minutes to fill and stack. When the weigh process is completed, the weigh scale computer runs a summary reporting totalling the weight by denomination. These totals are recorded on the weigh/wrap verification report, which takes five minutes to produce.

When the wrap portion of the count is completed and all of the rolled coins have been canned and stacked, they are manually counted by denomination. These totals are also recorded on the weigh/wrap verification report. The variance in both dollar amounts and percentages, for each denomination, is calculated. Variances that exceed plus or minus 2 percent or are \$1,000 or greater (whichever is less) must be investigated by the hard count supervisor, who writes an

explanatory report. If no significant variances exist, all members of the hard count team sign the weigh/wrap verification report. To complete the hard count process, the casino cashier's cage is then notified that the slot drop is ready to be transferred into cage accountability. Manually counting and verifying the counts take on average two minutes per can.

In a process separate from the hard count, a cage cashier performs an independent count and verification, by denomination, of the wrap. If everything balances, the main bank cashier signs the weigh/wrap verification report, accepting the slot drop into cage accountability. It is at this point that the actual slot gross gaming revenue is recognized.

Questions

- 1) Draw a diagram of the drop process. How long should it take to empty 300 silver dollar slot machines?
- 2) Draw a diagram of the hard count process. How long should this process take to complete for 300 silver dollar slot machines? Assume that each slot machine has an average of 750 silver dollars when it is emptied.
- 3) The casino is considering the purchase of a second coin-wrapping machine. What impact would this have on the hard count process? Is this the most desirable machine to purchase?

Source: Chase, R. B., Jacobs, F. R. and N. J. Aquilano, 2007, *Operations Management for Competitive Advantage*, 11th edition, McGraw-Hill, pp, 177-178.