# Analyzing casino-money handling process essay

The Buffalo News Team| Analyzing Casino Money-Handling Processes | MGO630: Mini-case #2| Ashley BeckerZachary BradoColin CaseySamantha ChmuraArvind Thinagarajan 2/2/2012| 1. The Drop process Drop team leader, security and accounting people deliver the buckets to hard count room [30 min/cart] Security officer and slot drop team leader obtain slot cabinet keys from casino cashier's cage [15 min]

Slot drop leader removes the drop bucket from slot machine cabinet [10 min/slot machine] Tag with proper slot machine number is placed on top of the coins A cart is filled with buckets from 20 different slot machines Buckets are securely locked in the hard count room to await start of the hard count process Drop team leader, security and accounting people deliver the buckets to hard count room [30 min/cart] Security officer and slot drop team leader obtain slot cabinet keys from casino cashier's cage [15 min]

Slot drop leader removes the drop bucket from slot machine cabinet [10 min/slot machine] Tag with proper slot machine number is placed on top of the coins A cart is filled with buckets from 20 different slot machines Buckets are securely locked in the hard count room to await start of the hard count process How long does it take to empty 300 silver dollar slot machines? i. Retrieve keys – 15 minutes ii. Retrieve drop bucket * 10 minutes/machine * Therefore, 3000 minutes for 300 machines iii. Deliver and secure bucket * 30 minutes/cart * 20 buckets/cart * 15 carts will hold 300 buckets Therefore, 450 minutes to deliver and secure 15 carts or 300 buckets. Adding [i], [ii] & [iii], Time taken to empty 300 silver dollar slot machines = (15 + 3000 + 450) minutes = 3465 minutes How long does it take to empty 300 silver dollar slot machines? iv. Retrieve keys – 15 minutes v. Retrieve drop bucket *

10 minutes/machine * Therefore, 3000 minutes for 300 machines vi. Deliver and secure bucket * 30 minutes/cart * 20 buckets/cart * 15 carts will hold 300 buckets * Therefore, 450 minutes to deliver and secure 15 carts or 300 buckets. Adding [i], [ii] & [iii],

Time taken to empty 300 silver dollar slot machines = (15 + 3000 + 450) minutes = 3465 minutes 2. The hard count process Yes Yes Hard count team tests weigh scale [10 min] Significant variance? Compare results to previous calibration results Supervisor contacts maintenance contractor and controller's office Drop buckets emptied into weigh scale holding hopper Using ID tag, specific slot machine # of respective bucket entered into weigh scale computer (WSC) WSC converts weight of coins, by denomination, into specific $$ value WSC records $$ value along with slot machine # in weigh ournal Coins are transported to wrapping machines Coins are wrapped into rolls of 25 each and transported to Canning station Rolls are canned and stacked WSC runs Summary report and totals recorded on the weigh/wrap verification report Manual counting by denomination and totals recorded on the weigh/wrap verification report Hard count team tests weigh scale [10 min] Significant variance? Compare results to previous calibration results Supervisor contacts maintenance contractor and controller's office Drop buckets emptied into weigh scale holding hopper

Using ID tag, specific slot machine # of respective bucket entered into weigh scale computer (WSC) WSC converts weight of coins, by denomination, into specific $$ value WSC records $$ value along with slot machine # in weigh journal Coins are transported to wrapping machines Coins are wrapped into rolls of 25 each and transported to Canning station Rolls are canned and

stacked WSC runs Summary report and totals recorded on the weigh/wrap verification report Manual counting by denomination and totals recorded on the weigh/wrap verification report No No No

No Yes Yes Casino cashier's cage is notified that the slot drop is ready to be transferred into cage accountability Casino cashier's cage is notified that the slot drop is ready to be transferred into cage accountability Members of hard count team sign the weigh/wrap verification report Members of hard count team sign the weigh/wrap verification report Investigation by hard count supervisor. Explanatory report is written. Investigation by hard count supervisor. Explanatory report is written. Var > (+ 2) Or Var > $1000 Var > (+ 2) Or Var > $1000

How long should this process take to complete for 300 silver dollar slot machines? Assume that each slot machine has an average of $750 when emptied. Solution: Number of slot machines = 300 = Number of buckets Number of coins per machine= 750 Therefore, Total coins= 750 x 300 = 225, 000 i. Testing Weigh Scale= 10 minutes ii. Weighing & Recording Process * 7 minutes/bucket * Therefore, for 300 buckets, time taken to complete process = 2, 100 minutes iii. Coin wrapping machine * 25 coins are wrapped in each roll * Therefore, there are 9000 rolls for 225, 000 coins Wrapping takes place at the rate of 10 rolls per minute * Therefore, time taken to wrap all the coins= 900 minutes iv. Filling & Stacking [Canning] * 40 rolls in 5 minutes * Hence, 9000 rolls will take (45, 000)/40 minutes= 1125 minutes v. Weigh & Wrap verification report * Time taken= 5 minutes vi. Manual Counting verification report * 2-minutes per can * Times to calculate for 225 cans= 450 minutes Therefore, total time taken for hard count

process = (10 + 2100 + 900 + 1125 + 5 + 450) minutes = 4590 minutes . 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? Based on calculations that was done for question #2, the total time of hard count process (4590 minutes) is being split up by various processes as below, Hard Count Process| Time consumed(minutes)| % of time consumed| i) Testing weigh scale| 10| -| ii) Weighing and recording process| 2100| 45%| iii) Coin-wrapping process| 900| 20%| v) Filling & stacking (Canning process)| 1125| 25%| v) Weigh & wrap verification report| 5| -| vi) Manual counting verification report| 450| 10%| The coin-wrapping machine currently takes up 20% of the total time taken for the hard count process. By purchasing a second coin-wrapping machine, the time consumed by the machine in the overall process can be halved. When the time consumed by the coin-wrapping machine goes down to 450 minutes, it results in a 10% decrease in overall hard count process time.

However, it has to be noted that there are other processes that are guilty of contributing much higher percentages to the overall processing time, when compared to the coin-wrapping process. For example, the weighing and recording process takes up more than 45% of the total time. The canning process takes up nearly 25% of the total time. Therefore, even though adding another coin-wrapping machine would increase efficiency, the priority should be on improving the efficiency of the weighing and recording process by using more resources. 4. What would be the impact of purchasing " electronic" slot machines that do not use coins?

The processes would be completely changed if there was a purchase of electronic slot machines. In an electronic slot machine, the entire drop process could be averted resulting in higher turnaround time, lesser down-time, lesser personnel, higher ease of use higher automation and greater efficiency. However, with the purchase of electronic machines, there will be the need to set up dedicated IT staff and support team to help customers with their troubleshooting. The new drop process will not necessarily be retrieving but simply refilling the ATM machines.