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Designing of Skip Lot Sampling Plan V with Multiple Repetitive Group Sampling Plan (MRGS) As Reference Plan Indexed With Relative Slopes

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Abstract: This paper deals with the Procedure for optimal designing of skip lot sampling plan of type SkSP-V with Multiple Repetitive Group Sampling Plan as reference plan. In this paper, operating characteristic function for SkSP-V with Multiple Repetitive Group Sampling Plan has been derived and tables are provided for the designing of probability of acceptance at various levels. The designing of parameters includes Acceptable Quality Level (p_1), Limiting Quality Level (p_2) and Indifference Quality Level (p_0) and with their relative slopes. Necessary tables and procedure are given for designing the plan for various entry parameters.
Keywords: Acceptable Quality Level, Indifference Quality Level, Limiting Quality Level, Multiple Repetitive Group Sampling Plan, Skip Lot Sampling Plan.

1. Introduction

Acceptance sampling tools creates a bridge between 0% and 100% inspections. For the inspection of the products, only a small amount from the products, a sample of size 'n' is selected from large amount of the products, which is also called a lot. The decision on the entire lot whether to accept or to reject depends on the information obtained from this sample size. The basic acceptance sampling plan called the single-sampling plan is widely used in industry to inspect items due to its easiness for implementation. The skip-lot sampling program can be used for reducing the amount of inspection on a product that has excellent quality history. Thus skip-lot sampling plans are designed to reduce inspection costs.

Dodge [1] has introduced the concept of skip-lot sampling, by applying the principles of a continuous sampling plan of type CSP-1 to a series of lots or batches of material. This plan is designated as the SkSP-1 plan and is specifically applicable for bulk materials or products produced in successive lots. Perry [2] has developed a system of sampling inspection plan known as SkSP-2. This plan involves inspection of only some fraction 'f' of the submitted lots when quality of the submitted product is good as demonstrated by the quality of the product. Suresh [3] has given for the selection of Skip-lot Sampling Plan of type SkSP-2 with reference plans SSP(c=0), SSP(c≠0) and DSP(0,1) using consumer and producer quality levels.

Recently Balamurali [4] has studied optimal designing of skip-lot sampling plan V with Double Sampling Plan as the reference plan. The design parameters are determined so as to minimize the average sample number while the specified producers risk and the consumers risks are satisfied.

The concept of Repetitive Group Sampling (RGS) plan was introduced by Sherman [5] in which acceptance or rejection of a lot is based on the repeated sample results of the same lot. Later, Gauri Shankar and Joseph [6] have proposed a new repetitive group sampling plan as an extension of conditional repetitive group sampling plan in which acceptance or rejection of a lot on the basis of repeated sample is dependent on the outcome of inspection under a Repetitive Group Sampling inspection system of the preceding lots. Further they derived the formulae for OC and ASN functions. An attempt has been made to model and analyze the dynamics of the proposed inspection system through GERT approach.

Suresh and Saminathan [7] have given a procedure to define Multiple Repetitive Group Sampling plan indexed with MAPD and MAAOQ. Suresh and Kaviyarasu [8] have studied QSS-1 with Multiple RGS as reference plan indexed with Acceptable Quality Level (AQL), Limiting Quality Level (LQL), Indifference Quality Level (IQL) and its Operating Ratio. Poisson unity values have been tabulated to facilitate the operation and construction of the plan. Illustrations are also provided for selection of plan parameters.

2. Operating Procedure

Draw a random sample of size *n* and determined the number of defectives *(d)* found therein.

1. Accept the lot, if $d \leq c_1$

Reject the lot, if $d > c_2$

2. If $c_1 < d \leq c_2$, repeat the step (1) and (2) provided *i* successive previous lots are accepted under RGS inspection system, otherwise reject the lot.

Thus MRGS plans are characterized by four parameters, namely, n, c_1, c_2 and acceptance criterion i. Here, it may be noted that when $c_1 = c_2$, the resulting plan is simple single sampling. Also, for $i = 0$ one can have the RGS plan of Sherman (1965). It may further be noted that the conditions of the application of the proposed plan is same as Sherman RGS plan.

2.1 Operating Characteristic function

The operating characteristics function $P_a(p)$ of Multiple Repetitive Group Sampling plan is derive by Shankar and Joseph using Poisson model as

$$P_a(p) = \frac{P_a(1-P_c)^i}{(1-P_c)^i - P_c P_a^i} \quad (1)$$

where $P_a = \sum_{x=0}^{c_1} \frac{e^{-np}(np)^x}{x!}$,

$$P_r = 1 - \sum_{x=0}^{c_2} \frac{e^{-np}(np)^x}{x!}$$

$$P_c = \sum_{x=0}^{c_2} \frac{e^{-np}(np)^x}{x!} - \sum_{x=0}^{c_1} \frac{e^{-np}(np)^x}{x!}$$

and $$h = -\frac{p}{P_a(p)} \frac{dP_a(p)}{dp}$$

2.2 Designing plans for given p_1, p_2, α and β

Table 4.4.1 is used to design SkSP-V with Multiple Repetitive Group Sampling *(c = 0, c = 1)* as reference plan for given p_1, p_2, α and β. The steps to be followed are:

- Specify p_1 - Acceptable Quality Level (AQL), p_2 – Limiting Quality Level (LQL), producer risk *(α)* and consumer risk *(β).*
- The operating ratio is $OR = p_2/p_1$.
- Choose the plan parameters having c_1, c_2, f, k, i_{mrgs} and i associated with an operating ratio which is nearest in the corresponding table.
- Determine the sample size $n = np_1/p_1$
- The OC Curve may be drawn by dividing the values of np shown for the plan by sample size n to obtain p associated with 0.95 for *Pa(p).*
- Thus the plan consists of six parameters namely c_1, c_2, f, k, i and i_{mrgs} may chosen from the given tables.

Example 2.2.1

Suppose a Skip-lot Multiple RGS plan is desired with $Pa(p_1) = 0.95$ for having $p_1 = 0.02$ and $p_2 = 0.06$ then,

1. $p_1 = 0.02$, $\alpha = 0.05$, $p_2 = 0.06$ and $\beta = 0.10$.
2. OR = 0.06 / 0.02 = 3.
3. The operating ratio is OR = 3 in the Table 4.4.2 which is nearest to the desired ratio is 3.154532 for which the plan parameters are $c_1 = 1$, $c_2 = 4$, $k = 2$, $f = 1/5$, $i_{mrgs} = 2$ when $i = 1$ and $np_1 = 1.8171$
4. The sample size $n = np_1 / p_1 = 1.8171 / 0.02 = 90$.
5. The OC curve is obtained by dividing the values of *np* is given below

(p)	0.99	0.95	0.75	0.50	0.10	0.05	0.01
p	068605	090855	129105	167355	286605	329605	422855

6. The desired plan parameters is, $c_1 = 1$, $c_2 = 4$, $k = 2$, $f = 1/5$, $i_{mrgs} = 2$ when $i = 1$ and $n = 20$.

2.3 Designing the plan with given sample size and a point on the OC Curve:

It can be used to design a plan of type SkSPMRGS-V when the sample size is fixed at a point on the OC curve *(p, Pa(p))* is specified. To design a plan let $n = 70$, $p = 0.03$ and $Pa(p) = 0.95$, scan the column

headed with $Pa(p) = 0.95$, when $i = 1$ to find the np value which is nearer to the desired value 70*0.03 = 2.1. The value approximately equals to 2.1371 which corresponds to the parameters $c_1 = 1$, $c_2 = 5$, $k = 2.5$, $f = 1/5$, $i_{mrgs} = 2$ when $i = 1$. Thus the desired SkSPMRGS-V has the parameters $n = 70$, $c_1 = 1$, $c_2 = 5$, $k = 2.5$, $f = 1/5$, $i_{mrgs} = 2$ when $i = 1$.

3. Designing of Skip-lot Sampling Plan V with Multiple Repetitive Group Sampling (MRGS) plan indexed with Relative Slopes of Acceptable and Limiting quality levels

3.1 Selection of parameters with relative slope h_1 at the Acceptable Quality Level

Table 4.4.4 is used to select the parameters for Multiple Repetitive Group Sampling plan indexed with p_1 and h_1. For example, given $p_1 = 0.01$ and $h_1 = 0.64$ from Table 4.4.4 under the column headed h_1, locate the value is equal to or just greater than the desired value h_1. Corresponding to this h_1, the values of parameters associated with the relative slopes are $np_1 = 2.4871$, $i = 1$, $i_{mrgs} = 2$, $c_1 = 1$, $c_2 = 6$, $f = 1/5$ and $k = 1$. From this one can obtain the sample size as $n = np_1/p_1 = 248.71 \approx 249$. Thus the parameters are $n = 249$, $i = 1$, $i_{mrgs} = 2$, $c_1 = 1$, $c_2 = 6$, $f = 1/5$ and $k = 1$.

3.2 Selection of parameters with relative slope h_2 at the Limiting Quality Level

Table 4.4.4 is used to select the parameters for Multiple Repetitive Group Sampling plan indexed with p_2 and h_2. For example, given $p_2 = 0.02$ and $h_2 = 9.90$ from Table 4.4.4 under the column headed h_2, locate the value is equal to or just greater than the desired value h_2. Corresponding to this h_2, the values of parameters associated with the relative slopes are $np_2 = 7.4071$, $i = 1$, $i_{mrgs} = 2$, $c_1 = 2$, $c_2 = 5$, $f = 1/5$ and $k = 2.5$. From this one can obtain the sample size as $n = np_2/p_2 = 370.355 \approx 370$. Thus the parameters are $n = 370$ $i = 1$, $i_{mrgs} = 2$, $c_1 = 2$, $c_2 = 5$, $f = 1/5$ and $k = 2.5$.

3.3 Selection of parameters with relative slope h_0 at the Indifference Quality Level

Table 4.4.4 is used to select the parameters for Multiple Repetitive Group Sampling plan indexed with p_0 and h_0. For example, given $p_0 = 0.03$ and $h_0 = 2.52$ from Table 4.4.4 under the column headed h_0, locate the value is equal to or just greater than the desired value h_0. Corresponding to this h_0, the values of parameters associated with the relative slopes are $np_0 = 2.7221$, $i = 1$, $i_{mrgs} = 2$, $c_1 = 1$, $c_2 = 2$, $f = 1/3$ and $k = 2.5$. From this one can obtain the sample size as $n = np_0/p_0 = 90.7364 \approx 91$. Thus the parameters are $n = 91$, $i = 1$, $i_{mrgs} = 2$, $c_1 = 1$, $c_2 = 2$, $f = 1/3$ and $k = 2.5$.

4. Construction of Tables

The expression for the OC function of SkSP-V with MRGS as reference plan is given as

$$P_a(p) = \frac{fP + (1-f)P^i + fP^{k+1}(P^i - P^k)}{f(1 + P^{i+k} - P^{2k}) + (1-f)P^i} \tag{2}$$

Here

$$P = \frac{P_a(1-P_c)^i}{(1-P_c)^i - P_c P_a^i} \tag{3}$$

is the OC function of MRGS as reference plan.

For assumed values of c_1, c_2, i, k, f, i_{mrgs} and $P_a(p)$ the equation 4.4.1 is solved with equation 4.4.2 for np using iteration techniques. Utilizing the np values tabulated for different values of c_1, c_2, i, k, f, i_{mrgs} in Table 4.4.1 to 4.4.4 gives the values for incoming and outgoing quality levels, OR values are calculated for different α and β values are given. Assuming nAOQ = $np*P_a(p)$, value of np which maximizes nAOQ was obtained by the method of successive approximation and these values (np_m) together with nAOQL $(=np_m*P_a(p_m))$ appear in Table 4.4.3.

The relative slope of the OC curve is given as

$$h = -\frac{p}{P_a(p)}\left[\frac{dP_a(p}{dp}\right]_{\text{at } p = p_*} \tag{4}$$

The values of relative slopes at AQL, LQL and IQL are h_1, h_2 and h_0 values, which are calculated using the np_1, np_2, np_0 values.

Table 1

Proportion defectives against the given probability of acceptance for SkSP-V with MRGS as reference plan

						Probability of Acceptance						
i	i_{mrqs}	***k***	***f***	c_1	c_2	**0.99**	**0.95**	**0.75**	**0.50**	**0.10**	**0.05**	**0.01**
1	2	1	1/5	1	2	0.6921	1.1821	2.2071	3.2421	5.7321	6.5921	8.4571
1	2	1.5	1/5	1	3	1.0371	1.4971	2.3571	3.2721	5.7321	6.5921	8.4571
1	2	2	1/5	1	4	1.3721	1.8171	2.5821	3.3471	5.7321	6.5921	8.4571
1	2	2.5	1/5	1	5	1.6971	2.1371	2.8421	3.4821	5.7371	6.5921	8.4571
1	2	1	1/5	1	6	2.0371	2.4871	3.1271	3.6721	5.7371	6.5921	8.4571
1	2	1.5	1/5	2	3	1.2271	1.9071	3.2821	4.5621	7.4071	8.3521	10.3871
1	2	2	1/5	2	4	1.6321	2.2571	3.4321	4.5921	7.4071	8.3521	10.3871
1	2	2.5	1/5	2	5	2.0171	2.6071	3.6471	4.6471	7.4071	8.3521	10.3871
1	2	1	1/5	2	6	2.4071	3.0021	3.9071	4.7471	7.4071	8.3521	10.3871
1	2	1.5	1/5	2	7	2.7671	3.3321	4.1621	4.8921	7.4071	8.3521	10.3871
1	2	2	1/5	3	4	1.8171	2.6721	4.3571	5.8371	8.9621	9.9871	12.1721
1	2	2.5	1/5	3	5	2.2621	3.0471	4.5071	5.8571	8.9621	9.9871	12.1721
1	2	1	1/5	3	6	2.7071	3.4771	4.7171	5.9021	8.9671	9.9871	12.1721
1	2	1.5	1/5	3	7	3.1121	3.8221	4.9321	5.9771	8.9671	9.9871	12.1721
1	2	2	1/5	3	8	3.5021	4.1721	5.1971	6.1021	8.9671	9.9871	12.1721
1	2	2.5	1/3	1	2	0.5821	0.9771	1.8171	2.7221	5.1471	6.0071	7.8821
1	2	1	1/3	1	3	0.9221	1.3471	2.0771	2.8071	5.1471	6.0071	7.8821
1	2	1.5	1/3	1	4	1.2571	1.6721	2.3321	2.9471	5.1471	6.0071	7.8821
1	2	2	1/3	1	5	1.5821	1.9971	2.6171	3.1521	5.1521	6.0071	7.8821
1	2	2.5	1/3	1	6	1.9071	2.3171	2.9171	3.3921	5.1571	6.0071	7.8821
1	2	1	1/3	2	3	1.0721	1.6821	2.8321	3.9471	6.7521	7.7071	9.7671
1	2	1.5	1/3	2	4	1.4771	2.0521	3.0371	4.0071	6.7521	7.7071	9.7671
1	2	2	1/3	2	5	1.8621	2.4171	3.3021	4.1271	6.7521	7.7071	9.7671
1	2	2.5	1/3	2	6	2.2371	2.7771	3.5971	4.3071	6.7521	7.7071	9.7671
1	2	1	1/3	2	7	2.6121	3.1571	3.9171	4.5271	6.7571	7.7071	9.7671
1	2	1.5	1/3	3	4	1.6171	2.3871	3.7921	5.1221	8.2521	9.2921	11.5071

1	2	2	1/3	3	5	2.0671	2.7921	4.0121	5.1821	8.2521	9.2921	11.5071
1	2	2.5	1/3	3	6	2.4971	3.1821	4.2771	5.2921	8.2521	9.2921	11.5071
1	2	1	1/3	3	7	2.9221	3.6021	4.5971	5.4471	8.2521	9.2921	11.5071
1	2	1.5	1/3	3	8	3.3171	3.9671	4.8771	5.6371	8.2521	9.2921	11.5071
1	2	2	1/2	1	2	0.5121	0.8721	1.5821	2.3471	4.6821	5.5421	7.4271
1	2	2.5	1/2	1	3	0.8371	1.2171	1.8621	2.4921	4.6821	5.5421	7.4271
1	2	1	1/2	1	4	1.1721	1.5671	2.1721	2.6971	4.6871	5.5421	7.4271
1	2	1.5	1/2	1	5	1.4971	1.8921	2.4671	2.9321	4.6921	5.5421	7.4271
1	2	2	1/2	1	6	1.8171	2.2171	2.7721	3.2021	4.7171	5.5471	7.4271
1	2	2.5	1/2	2	3	0.9571	1.4871	2.4821	3.4871	6.2221	7.1921	9.2721
1	2	1	1/2	2	4	1.3571	1.9021	2.7921	3.6171	6.2271	7.1921	9.2721
1	2	1.5	1/2	2	5	1.7471	2.2771	3.0821	3.7871	6.2271	7.1921	9.2721

Table 2
Operating ratios at different level of producer's risk and consumer's risk for the specified SkSP-V with MRGS as reference plan

i	i_{mrgs}	***k***	***f***	c_1	c_2	p_2/p_1 **for** α**=0.05**			p_2/p_1 **for** α**=0.01**		
						α**=0.05** β**=0.10**	α**=0.05** β**=0.05**	α**=0.05** β**=0.01**	α**=0.01** β**=0.10**	α**=0.01** β**=0.05**	α**=0.01** β**=0.01**
1	2	1	1/5	1	2	4.849082	5.576601	7.154302	8.282185	9.52478	12.21948
1	2	1.5	1/5	1	3	3.828802	4.403246	5.648988	5.527047	6.356282	8.154566
1	2	2	1/5	1	4	3.154532	3.627814	4.654174	4.177611	4.804387	6.163618
1	2	2.5	1/5	1	5	2.684526	3.084601	3.957279	3.380531	3.884332	4.983266
1	2	1	1/5	1	6	2.306743	2.650517	3.400386	2.816307	3.236022	4.151539
1	2	1.5	1/5	2	3	3.88396	4.379477	5.446542	6.036264	6.806373	8.464754
1	2	2	1/5	2	4	3.281689	3.700368	4.601967	4.538386	5.117395	6.364255
1	2	2.5	1/5	2	5	2.841126	3.203598	3.984159	3.672153	4.140647	5.149522
1	2	1	1/5	2	6	2.467306	2.782086	3.459945	3.077188	3.469777	4.315193
1	2	1.5	1/5	2	7	2.222952	2.506557	3.117283	2.676846	3.018359	3.753786
1	2	2	1/5	3	4	3.353954	3.737547	4.555256	4.93209	5.496175	6.698641
1	2	2.5	1/5	3	5	2.94119	3.277575	3.994651	3.96185	4.414968	5.380885
1	2	1	1/5	3	6	2.57890	2.87225	3.500647	3.312438	3.689225	4.496361

						2					
1	2	1.5	1/5	3	7	2.346119	2.612988	3.184663	2.881366	3.209119	3.911218
1	2	2	1/5	3	8	2.149301	2.393783	2.9175	2.560492	2.851746	3.475657
1	2	2.5	1/3	1	2	5.267731	6.147887	8.06683	8.842295	10.3197	13.5408
1	2	1	1/3	1	3	3.820874	4.459283	5.851162	5.581933	6.514586	8.547988
1	2	1.5	1/3	1	4	3.078225	3.592548	4.713893	4.094424	4.778538	6.270066
1	2	2	1/3	1	5	2.579791	3.007911	3.946773	3.256495	3.796915	4.982049
1	2	2.5	1/3	1	6	2.22567	2.592508	3.401709	2.704158	3.149861	4.133029
1	2	1	1/3	2	3	4.01409	4.581832	5.806492	6.298013	7.188788	9.110251
1	2	1.5	1/3	2	4	3.290337	3.755714	4.759563	4.571187	5.217724	6.612349
1	2	2	1/3	2	5	2.793472	3.188573	4.040834	3.626067	4.138929	5.245207
1	2	2.5	1/3	2	6	2.431349	2.775233	3.517014	3.018238	3.44513	4.365965
1	2	1	1/3	2	7	2.140287	2.441196	3.093694	2.586846	2.950538	3.739175
1	2	1.5	1/3	3	4	3.456956	3.892631	4.820535	5.103024	5.746151	7.115886
1	2	2	1/3	3	5	2.955517	3.327997	4.121307	3.992115	4.495235	5.566784
1	2	2.5	1/3	3	6	2.593287	2.920116	3.616197	3.304673	3.721157	4.608185
1	2	1	1/3	3	7	2.290914	2.579634	3.194553	2.824031	3.179939	3.937956
1	2	1.5	1/3	3	8	2.080134	2.34229	2.900633	2.487745	2.801272	3.469024
1	2	2	1/2	1	2	5.368765	6.35489	8.51634	9.142941	10.8223	14.50322
1	2	2.5	1/2	1	3	3.846931	4.553529	6.102292	5.593239	6.620595	8.872417
1	2	1	1/2	1	4	2.990939	3.536532	4.739391	3.998891	4.728351	6.336575
1	2	1.5	1/2	1	5	2.479837	2.929074	3.925321	3.134126	3.70189	4.960991
1	2	2	1/2	1	6	2.127599	2.501962	3.349917	2.59595	3.052721	4.087337
1	2	2.5	1/2	2	3	4.184049	4.836326	6.235021	6.500993	7.514471	9.687702
1	2	1	1/2	2	4	3.273803	3.781137	4.874665	4.588534	5.299609	6.832289
1	2	1.5	1/2	2	5	2.734663	3.158447	4.07189	3.564249	4.116593	5.307138

Table - 3
Relative slopes for Acceptable, Indifference and Limiting Quality Levels

i	i_{mrqs}	K	f	c_1	c_2	np_1	h_1	np_2	h_2	np_0	h_0
1	2	1	1/5	1	2	1.1821	0.316551	5.7321	9.29577	3.2421	2.869483
1	2	1.5	1/5	1	3	1.4971	0.39513	5.7321	8.477311	3.2721	2.455535
1	2	2	1/5	1	4	1.8171	0.473827	5.7321	7.468071	3.3471	2.289551
1	2	2.5	1/5	1	5	2.1371	0.546603	5.7371	6.557489	3.4821	2.289958
1	2	1	1/5	1	6	2.4871	0.645316	5.7371	5.909787	3.6721	2.373177
1	2	1.5	1/5	2	3	1.9071	0.544804	7.4071	11.60914	4.5621	3.95553
1	2	2	1/5	2	4	2.2571	0.653982	7.4071	10.87894	4.5921	3.533938
1	2	2.5	1/5	2	5	2.6071	0.749545	7.4071	9.90754	4.6471	3.287722
1	2	1	1/5	2	6	3.0021	0.862858	7.4071	8.891622	4.7471	3.216651
1	2	1.5	1/5	2	7	3.3321	0.920303	7.4071	8.037203	4.8921	3.220637
1	2	2	1/5	3	4	2.6721	0.835917	8.9621	13.66359	5.8371	4.998689
1	2	2.5	1/5	3	5	3.0471	0.968781	8.9621	12.99283	5.8571	4.543867
1	2	1	1/5	3	6	3.4771	1.106216	8.9671	12.08798	5.9021	4.246442
1	2	1.5	1/5	3	7	3.8221	1.178273	8.9671	11.0543	5.9771	4.086965
1	2	2	1/5	3	8	4.1721	1.227484	8.9671	10.09039	6.1021	4.08447
1	2	2.5	1/3	1	2	0.9771	0.371525	5.1471	8.229508	2.7221	2.524304
1	2	1	1/3	1	3	1.3471	0.543082	5.1471	7.319507	2.8071	2.28154
1	2	1.5	1/3	1	4	1.6721	0.668709	5.1471	6.354978	2.9471	2.210956
1	2	2	1/3	1	5	1.9971	0.785643	5.1521	5.619803	3.1521	2.298199
1	2	2.5	1/3	1	6	2.3171	0.889287	5.1571	5.187409	3.3921	2.430013
1	2	1	1/3	2	3	1.6821	0.721251	6.7521	10.4584	3.9471	3.674665
1	2	1.5	1/3	2	4	2.0521	0.903077	6.7521	9.610801	4.0071	3.316786
1	2	2	1/3	2	5	2.4171	1.066612	6.7521	8.624342	4.1271	3.226675
1	2	2.5	1/3	2	6	2.7771	1.201287	6.7521	7.724678	4.3071	3.278917
1	2	1	1/3	2	7	3.1571	1.357677	6.7571	7.080378	4.5271	3.387273
1	2	1.5	1/3	3	4	2.3871	1.125289	8.2521	12.44951	5.1221	4.664246
1	2	2	1/3	3	5	2.7921	1.358276	8.2521	11.65744	5.1821	4.344383
1	2	2.5	1/3	3	6	3.1821	1.54586	8.2521	10.68524	5.2921	4.232896
1	2	1	1/3	3	7	3.6021	1.728006	8.2521	9.716989	5.4471	4.257339
1	2	1.5	1/3	3	8	3.9671	1.824246	8.2521	8.919765	5.6371	4.259793
1	2	2	1/2	1	2	0.8721	0.469383	4.6821	7.405157	2.3471	2.315699
1	2	2.5	1/2	1	3	1.2171	0.665645	4.6821	6.45746	2.4921	2.206864
1	2	1	1/2	1	4	1.5671	0.906036	4.6871	5.594399	2.6971	2.301161
1	2	1.5	1/2	1	5	1.8921	1.075529	4.6921	5.01557	2.9321	2.378301
1	2	2	1/2	1	6	2.2171	1.229037	4.7171	4.757261	3.2021	2.54523
1	2	2.5	1/2	2	3	1.4871	0.857973	6.2221	9.556151	3.4871	3.498962
1	2	1	1/2	2	4	1.9021	1.195897	6.2271	8.655674	3.6171	3.39175
1	2	1.5	1/2	2	5	2.2771	1.441257	6.2271	7.702313	3.7871	3.330562

5. Conclusion

Acceptance sampling is the technique which deals with procedures in which decisions to accept or reject lots or processes based on the examination of sample. The work presented in this paper mainly relates to the procedure for designing and selection of tables for skip lot sampling plan of type SkSP-V with CRGS as reference plan indexed with relative slopes at Acceptable, Limiting and Indifference Quality Levels. Tables are provided here which are tailor-made, handy and ready-made uses to the industrial shop-floor conditions.

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