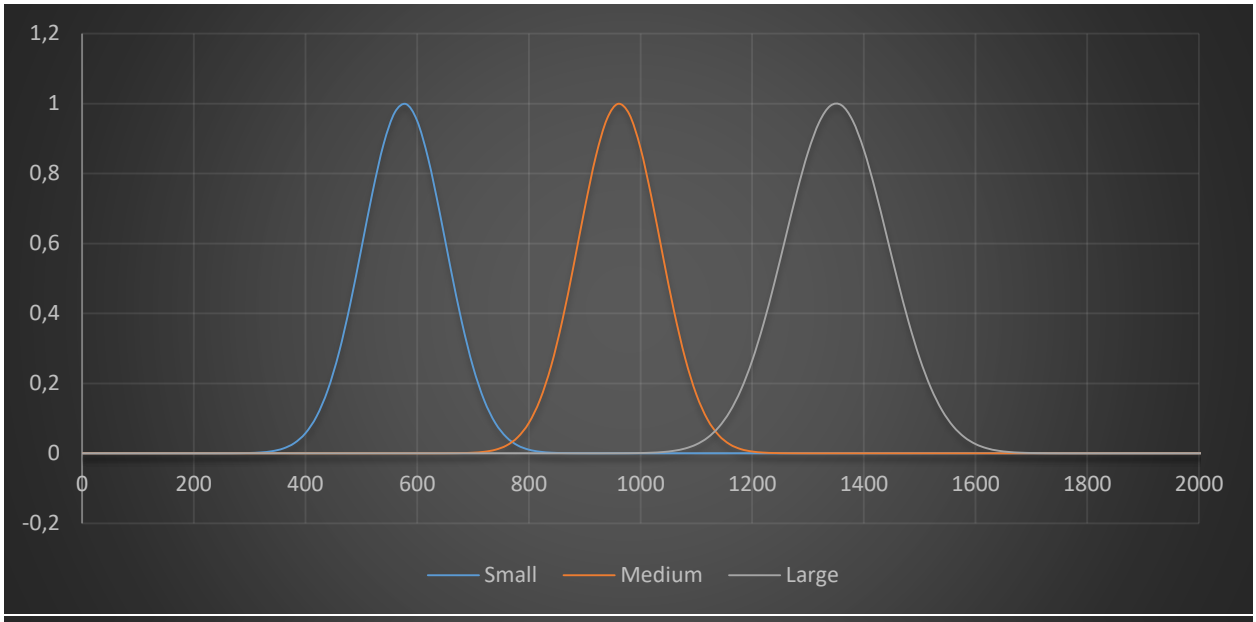
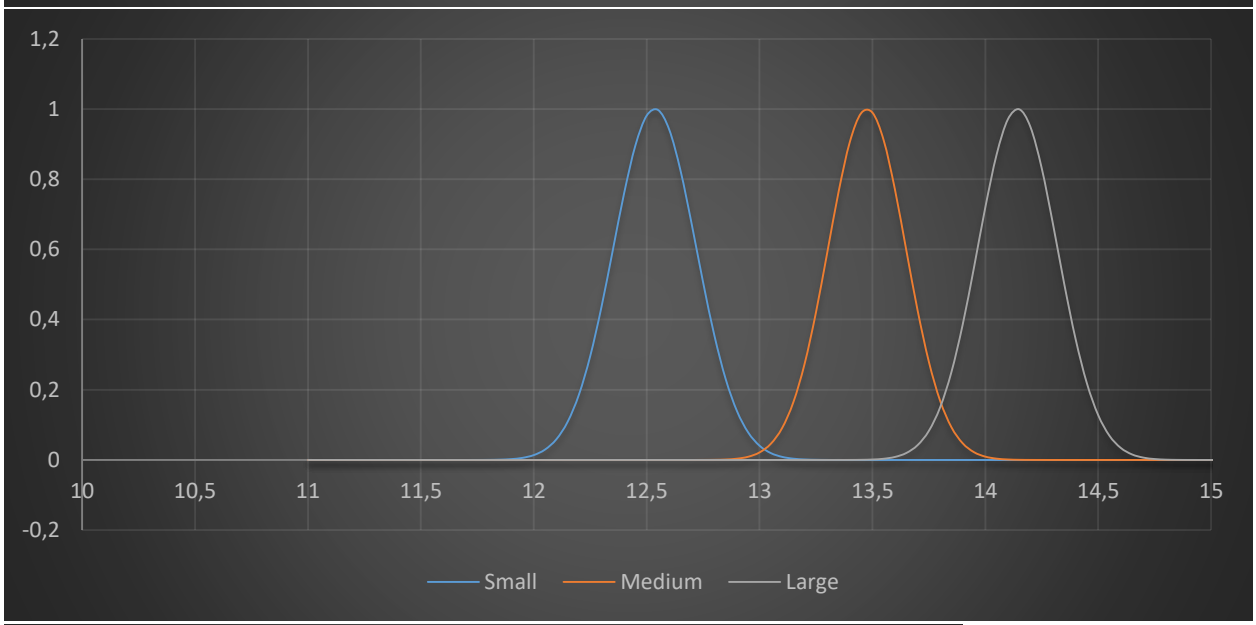
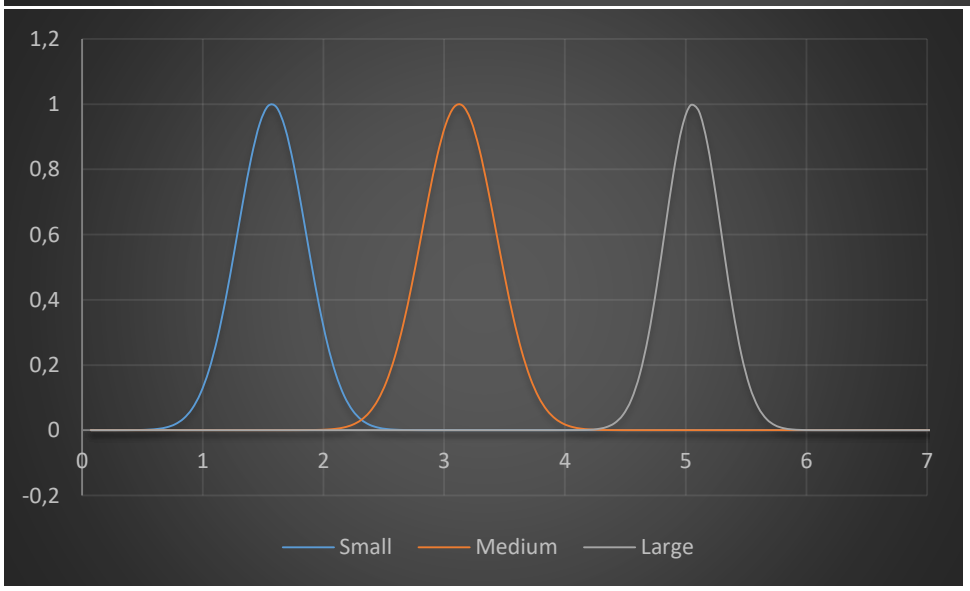
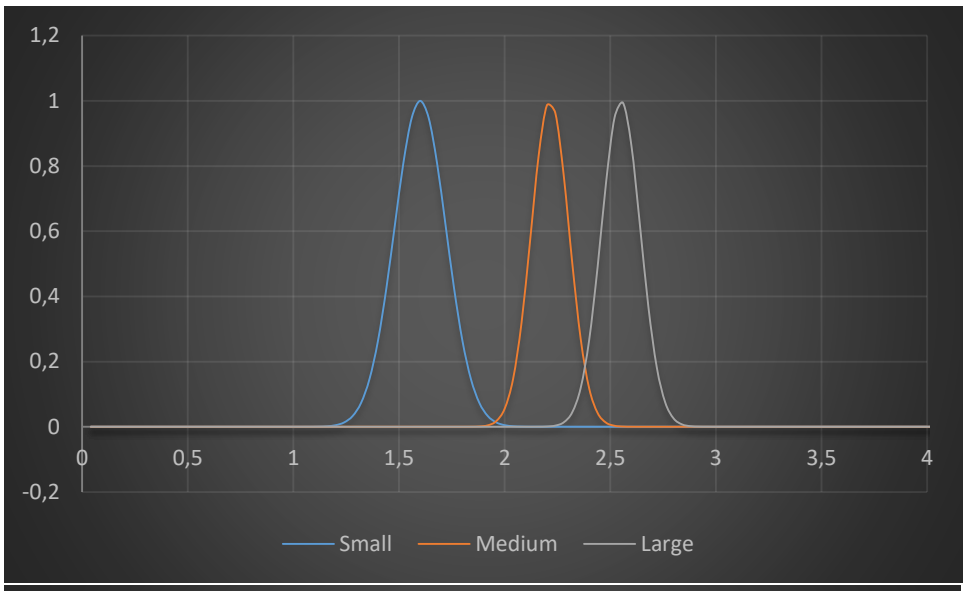
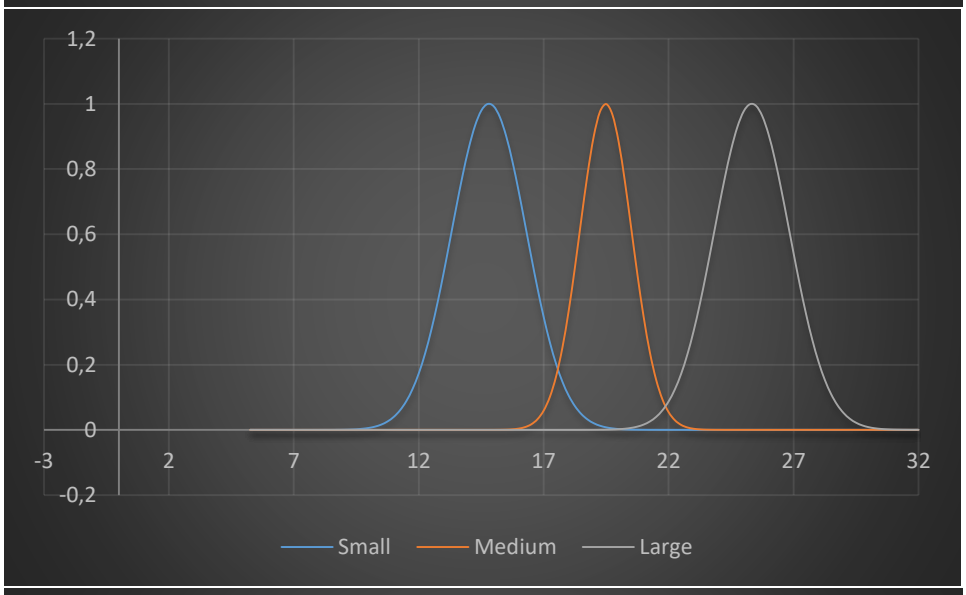
Membership function (Gausian)

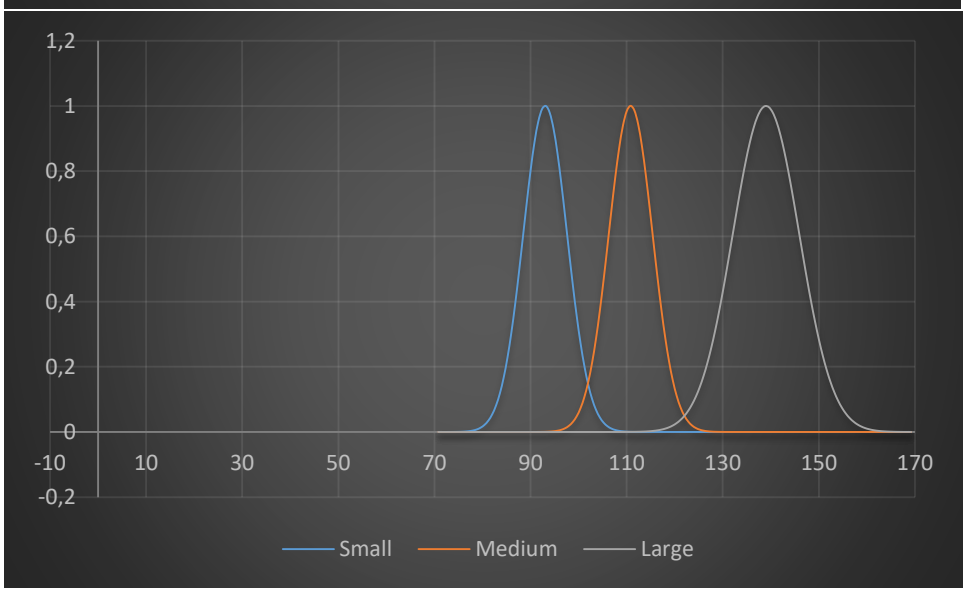


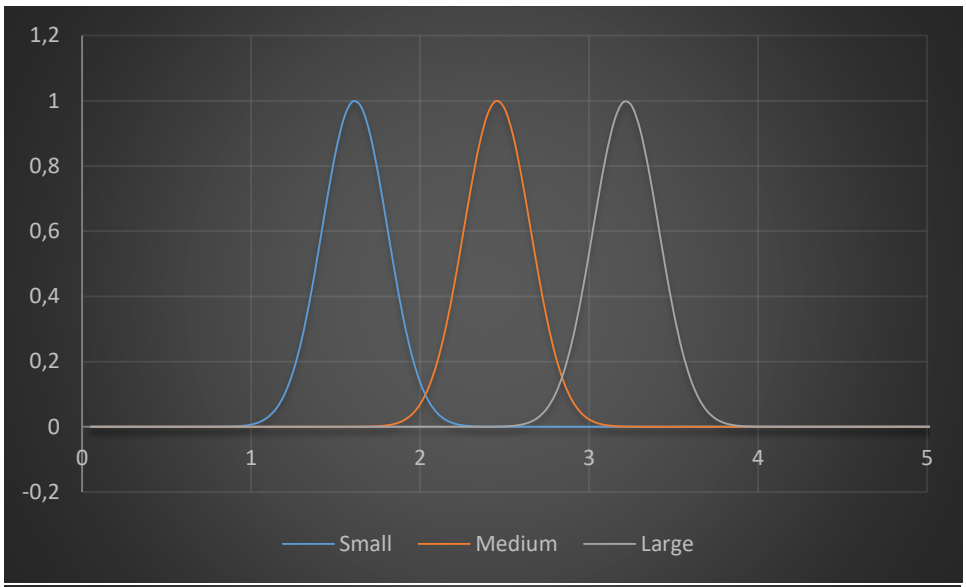


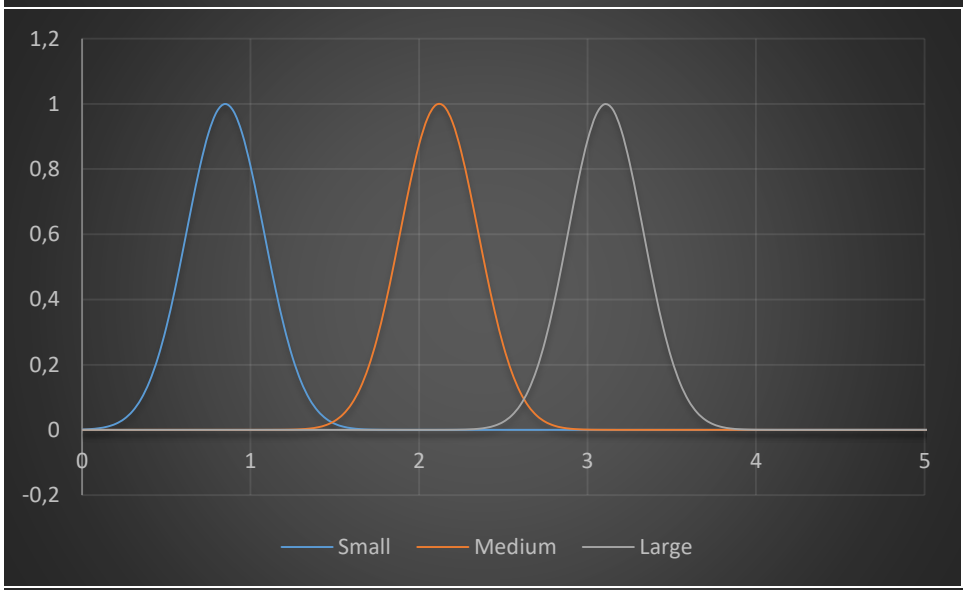


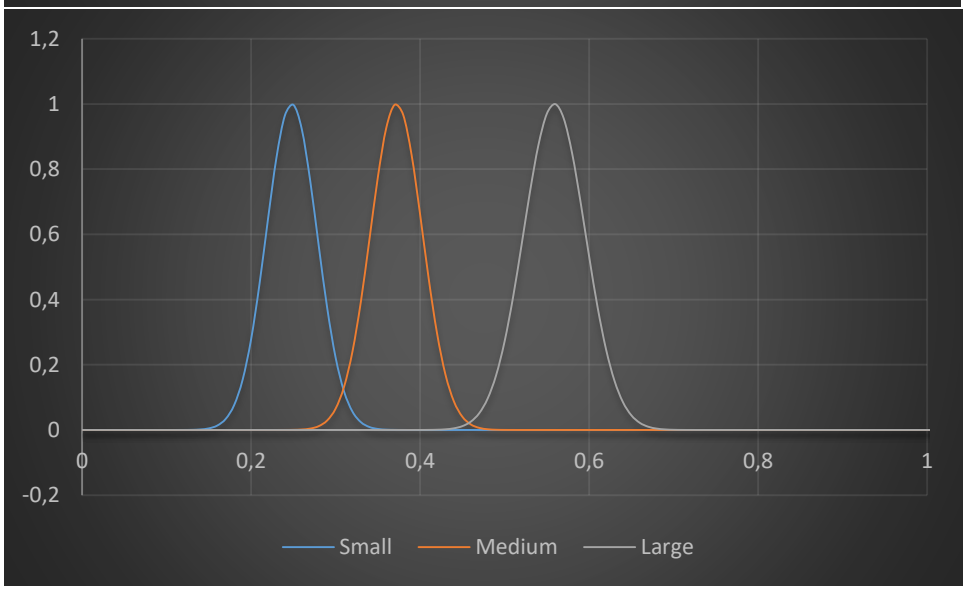

1,2
1
0,8
0,6
0,4
0,2
0
-0,2
0
0,5
1
1,5
2
2,5
3
3,5
4
Small
Medium
Large

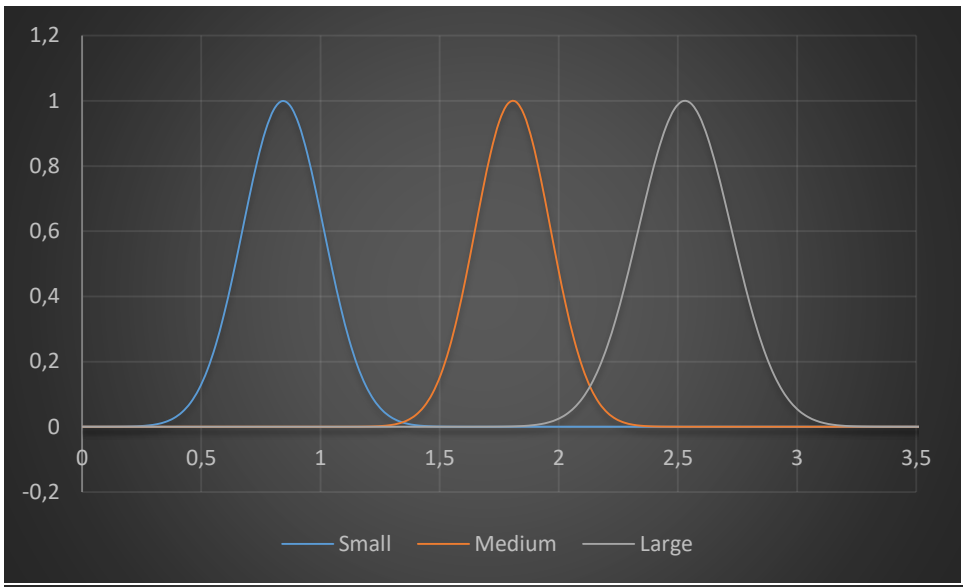

1,2
1
0,8
0,6
0,4
0,2
0
-0,2
-3
2
7
12
17
22
27
32
Small
Medium
Large

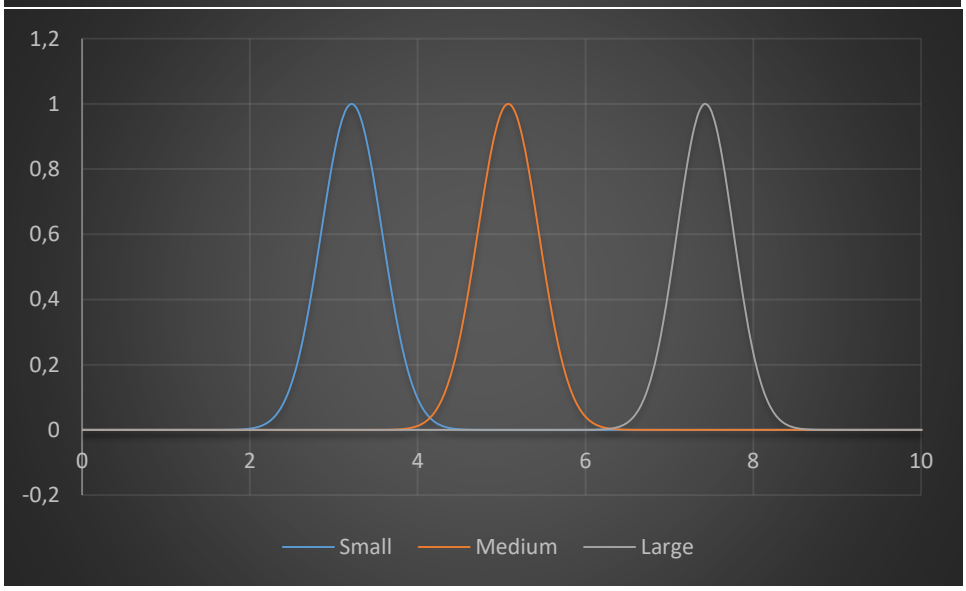

1,2
1
0,8
0,6
0,4
0,2
0
-0,2
-10
10
30
50
70
90
110
130
150
170
Small
Medium
Large

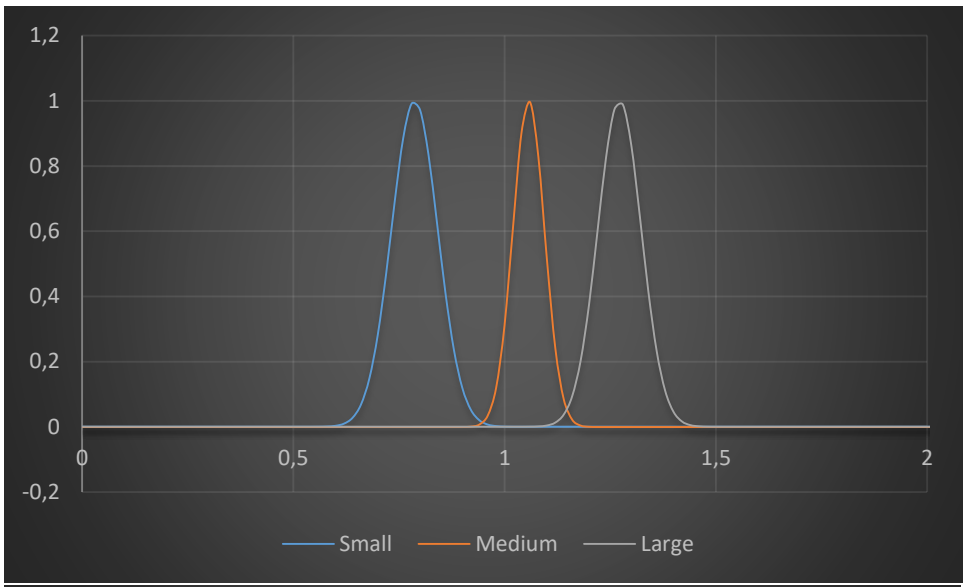

1,2
1
0,8
0,6
0,4
0,2
0
-0,2
0
1
2
3
4
5
Small
Medium
Large

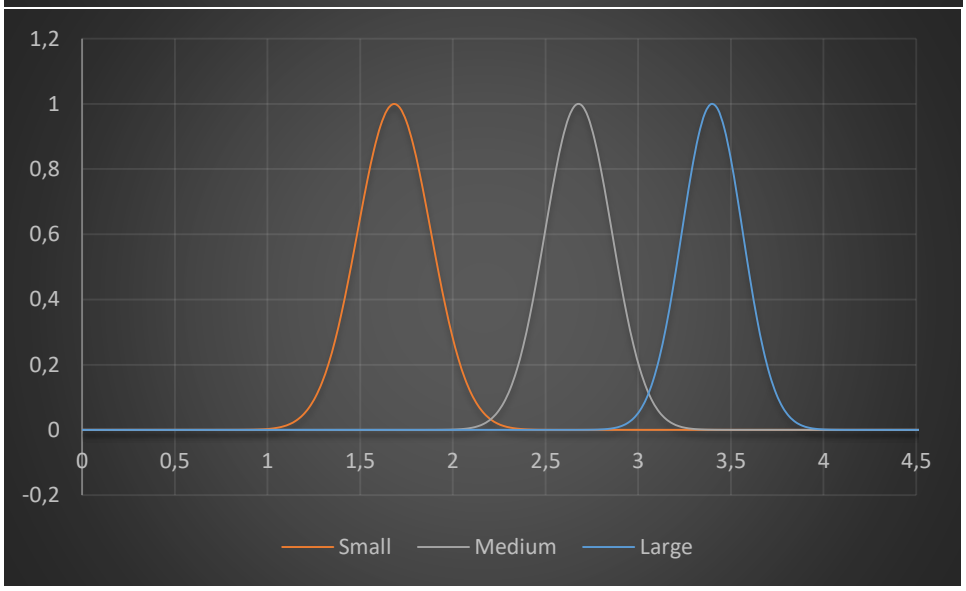

1,2
1
0,8
0,6
0,4
0,2
0
-0,2
0
1
2
3
4
5
Small
Medium
Large


1,2
1
0,8
0,6
0,4
0,2
0
-0,2
0
0,2
0,4
0,6
0,8
1
Small
Medium
Large


1,2
1
0,8
0,6
0,4
0,2
0
-0,2
0
0,5
1
1,5
2
2,5
3
3,5
Small
Medium
Large


1,2
1
0,8
0,6
0,4
0,2
0
-0,2
0
2
4
6
8
10
Small
Medium
Large





Rule 1

If x1 = large x2 = small x3 = large x4 = small x5 = medium x6 = medium x7 = medium x8 = small x9 = medium x10 = medium x11 = medium x12 = large x13 = large Then A

Rule 2

If x1 = small x2 = small x3 = medium x4 = medium x5 = small x6 = medium x7 = medium x8 = small x9 =small x10 = small x11 = medium x12 = medium x13 = small Then B

Rule 3

If x1 = small x2 = medium x3 = large x4 = medium x5 = small x6 = small x7 = small x8 = medium x9 = small x10 = medium x11 = small x12 = small x13 = small Then C

	Family A	Family B	Family C	Good not good
	A	B	C	Good
	A	B	C	Good
	A	B	C	Good
	A	other	C	Not good
	A	other	C	Not good
	A	other	C	Not good
	B	B	C	Not good
	A	B	C	Good
	B	B	C	Not good
	A	C	C	Not good
	other	B	C	Not good
	A	B	C	Good
	A	other	C	Not good
	A	other	C	Not good
	A	B	C	Good
	A	B	C	Good
	A	B	C	Good
	A	C	C	Not good
	A	C	C	Not good
	A	B	C	Good
	A	B	C	Good
	A	other	C	Not good
	B	other	C	Not good
	B	B	C	Not good
	A	B	C	Good
	A	other	C	Not good
	B	B	C	Not good
	A	B	C	Good
	B	B	C	Not good
	A	B	C	Good
	A	B	C	Good
	A	other	C	Not good
	A	B	C	Good
	A	C		
	A	B		
	A	B		
	A	B		
	A	B		
	A	other		
	A	B		
	A	B		
	A	other		
	A	B		
	A	B		
		C		
		B		
		B		
		other		
		other		

		C		
		B		
		B		
		B		
		other		
		B		
		C		
Success rate	81%	62.5%	100%	45%