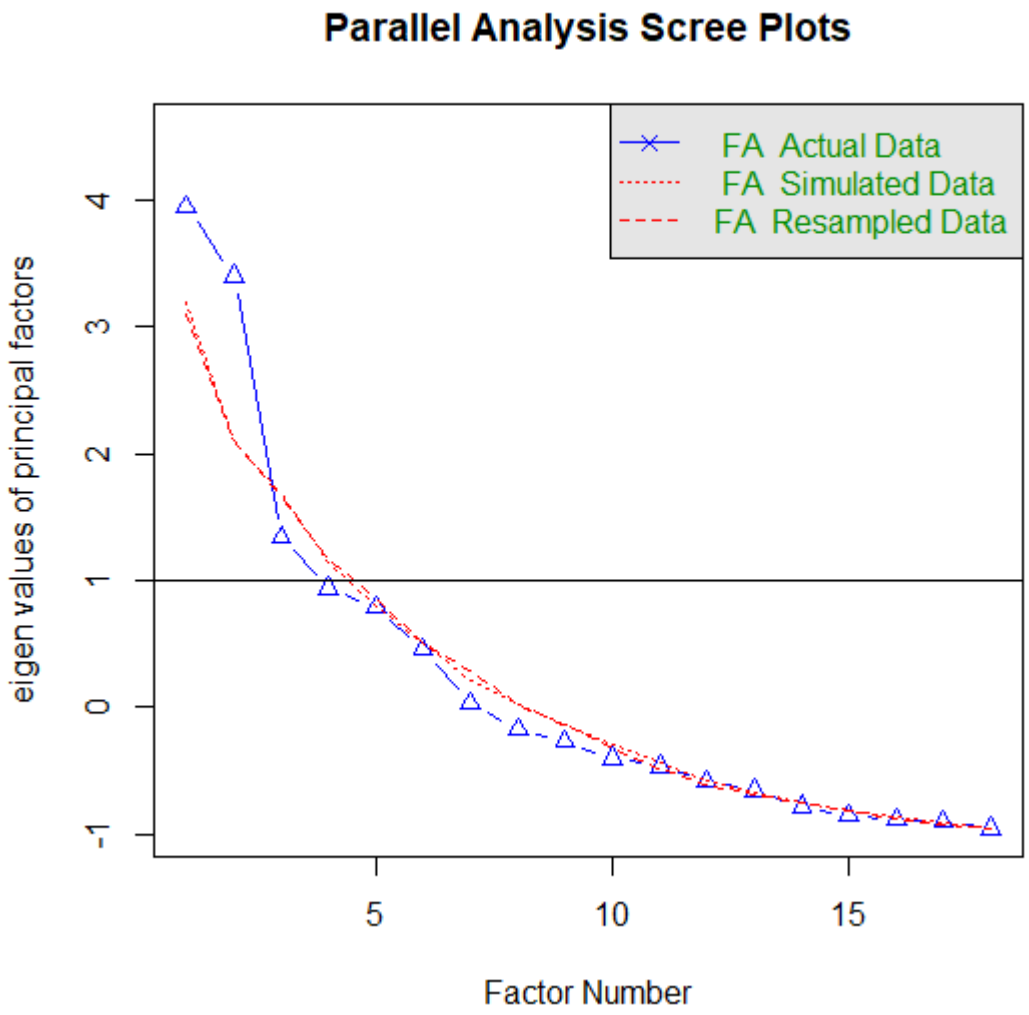
Appendices:

c) Eigen Values and Scree plot:



d) Factor Matrix:

(Screenshots of results from R)

```
> print(fit$loadings,cutoff = 0.3)

Loadings:
                                                        MR1    MR2
Frequency.of.online.shopping                                    0.891
Frequency.of.in.person.shopping                                -0.752
Presence.of.incentive                                   0.400  0.347
Deterrent.factor                                        0.522
Ease.of.delivery                                        0.607  0.379
Ease.of.access                                                 0.466
Consistency.of.shopping.list                            0.565  0.360
Loyalty.with.the.online.shopping.site                          0.757
Use.of.re.ordering                                      0.941
Absence.of.re.ordering.as.a.deterrent.factor            0.794
Reduction.of.impulse.buying.due.to.reordering           0.940
Change.in.expenditure.while.shifting.to.a.new.shopping.site            0.515
Watching.tracking.shopping.time                                0.555
Distraction.during.shopping                             0.351 -0.695
Shopping.within.limited.time.lessens.expenditure
More.time.leads.to.more.expenditure
Time.is.not.a.crucial.factor.affecting.expenditure             -0.411
X.More.time.leads.to.better.shopping.experience         0.313
                                                        MR3
Frequency.of.online.shopping
Frequency.of.in.person.shopping
Presence.of.incentive
Deterrent.factor
Ease.of.delivery                                       -0.335
Ease.of.access
Consistency.of.shopping.list
Loyalty.with.the.online.shopping.site
Use.of.re.ordering
Absence.of.re.ordering.as.a.deterrent.factor


Reduction.of.impulse.buying.due.to.reordering
Change.in.expenditure.while.shifting.to.a.new.shopping.site
Watching.tracking.shopping.time
Distraction.during.shopping
Shopping.within.limited.time.lessens.expenditure          0.929
More.time.leads.to.more.expenditure                       0.615
Time.is.not.a.crucial.factor.affecting.expenditure       -0.503
X.More.time.leads.to.better.shopping.experience

                 MR1   MR2   MR3
SS loadings    4.067 3.935 1.912
Proportion Var 0.226 0.219 0.106
Cumulative Var 0.226 0.445 0.551
```

After using Correlation cutoff r >0.5, the factor matrix:

```
> print(fit$loadings,cutoff = 0.5)

Loadings:
                                                          MR1    MR2    MR3
Frequency.of.online.shopping                                      0.891
Frequency.of.in.person.shopping                                  -0.752
Presence.of.incentive
Deterrent.factor                                          0.522
Ease.of.delivery                                          0.607
Ease.of.access
Consistency.of.shopping.list                              0.565
Loyalty.with.the.online.shopping.site                             0.757
Use.of.re.ordering                                        0.941
Absence.of.re.ordering.as.a.deterrent.factor              0.794
Reduction.of.impulse.buying.due.to.reordering             0.940
Change.in.expenditure.while.shifting.to.a.new.shopping.site       0.515
Watching.tracking.shopping.time                                   0.555
Distraction.during.shopping                                      -0.695
Shopping.within.limited.time.lessens.expenditure                          0.929
More.time.leads.to.more.expenditure                                       0.615
Time.is.not.a.crucial.factor.affecting.expenditure                       -0.503
X.More.time.leads.to.better.shopping.experience

                 MR1   MR2   MR3
SS loadings    4.067 3.935 1.912
Proportion Var 0.226 0.219 0.106
Cumulative Var 0.226 0.445 0.551
```

e) Scales and its items along with alpha value:

1.
>scale_onlineshopping=cbind(data$Deterrent.factor,data$Ease.of.delivery,data$Consistency.of.shopping.list,data$Use.of.re.ordering,data$Absence.of.re.ordering.as.a.deterrent.factor,data$Reduction.of.impulse.buying.due.to.reordering)

>alpha(scale_onlineshopping)

Raw alpha value: 0.86

Scale: Online Shopping

Items: Deterrent factor, Ease of delivery, Consistency of shopping list, Absence of re-ordering as a deterrent factor, Use of re-ordering, and Reduction of impulse buying due to reordering.

```
> alpha(scale_onlineshopping)

Reliability analysis
Call: alpha(x = scale_onlineshopping)

  raw_alpha std.alpha G6(smc) average_r S/N   ase mean  sd median_r
      0.86      0.87    0.91      0.53 6.7 0.054  4.8 1.5     0.49

 lower alpha upper     95% confidence boundaries
0.75 0.86 0.97

 Reliability if an item is dropped:
   raw_alpha std.alpha G6(smc) average_r S/N alpha se var.r med.r
V1      0.87      0.87    0.87      0.58 6.8    0.047 0.018  0.52
V2      0.85      0.86    0.89      0.55 6.1    0.060 0.032  0.50
V3      0.85      0.86    0.91      0.56 6.3    0.059 0.034  0.56
V4      0.82      0.83    0.84      0.49 4.8    0.070 0.018  0.48
V5      0.82      0.84    0.89      0.51 5.3    0.068 0.025  0.50
V6      0.79      0.82    0.81      0.47 4.4    0.086 0.020  0.44

 Item statistics
    n raw.r std.r r.cor r.drop mean  sd
V1 14  0.71  0.67  0.64   0.53  4.4 2.4
V2 14  0.67  0.73  0.66   0.59  6.3 1.1
V3 14  0.67  0.71  0.61   0.56  4.8 1.4
V4 14  0.85  0.85  0.86   0.76  3.7 2.2
V5 14  0.81  0.80  0.76   0.71  4.6 2.0
V6 14  0.93  0.90  0.92   0.88  5.1 2.2

Non missing response frequency for each item
        1    2    3    4    5    6    7 miss
[1,] 0.21 0.07 0.07 0.07 0.14 0.14 0.29    0
[2,] 0.00 0.00 0.00 0.14 0.07 0.14 0.64    0
[3,] 0.00 0.07 0.14 0.21 0.07 0.50 0.00    0
[4,] 0.21 0.14 0.14 0.07 0.21 0.07 0.14    0
[5,] 0.00 0.29 0.00 0.14 0.14 0.21 0.21    0
```

2.

> scale_loyalty=cbind(data$Frequency.of.online.shopping,8-data$Frequency.of.in.person.shopping,data$Loyalty.with.the.online.shopping.site,data$Change.in.expenditure.while.shifting.to.a.new.shopping.site,data$Watching.tracking.shopping.time,8-data$Distraction.during.shopping)

>alpha(scale_loyalty)

Raw alpha value: 0.83

Scale: Loyalty

Items: Frequency of online shopping, Frequency of in-person shopping, Loyalty with the online shopping site, Change in expenditure while shifting to a new shopping site, Watching/tracking shopping time, and Distraction during shopping.

```
> alpha(scale_loyalty)

Reliability analysis
Call: alpha(x = scale_loyalty)

  raw_alpha std.alpha G6(smc) average_r S/N   ase mean  sd median_r
      0.83      0.84     0.9      0.46 5.2 0.072  4.1 1.3     0.46

 lower alpha upper     95% confidence boundaries
0.69 0.83 0.97

 Reliability if an item is dropped:
   raw_alpha std.alpha G6(smc) average_r S/N alpha se var.r med.r
V1      0.78      0.79    0.86      0.42 3.7    0.095 0.040  0.43
V2      0.82      0.83    0.85      0.49 4.8    0.076 0.027  0.51
V3      0.79      0.80    0.88      0.44 3.9    0.093 0.039  0.45
V4      0.82      0.82    0.83      0.48 4.7    0.079 0.028  0.48
V5      0.83      0.84    0.87      0.51 5.2    0.075 0.039  0.54
V6      0.79      0.80    0.84      0.45 4.0    0.092 0.033  0.45

 Item statistics
    n raw.r std.r r.cor r.drop mean  sd
V1 14  0.83  0.84  0.81   0.74  4.7 1.7
V2 14  0.68  0.69  0.66   0.52  2.7 1.8
V3 14  0.79  0.80  0.75   0.70  5.2 1.6
V4 14  0.72  0.70  0.68   0.56  4.1 2.1
V5 14  0.65  0.65  0.58   0.49  4.1 1.9
V6 14  0.79  0.78  0.76   0.67  3.8 1.9

Non missing response frequency for each item
        1    2    3    4    5    6    7 miss
[1,] 0.00 0.07 0.21 0.21 0.14 0.14 0.21    0
[2,] 0.36 0.21 0.14 0.00 0.21 0.07 0.00    0
[3,] 0.00 0.00 0.29 0.00 0.14 0.36 0.21    0
[4,] 0.07 0.14 0.36 0.00 0.14 0.07 0.21    0
[5,] 0.07 0.14 0.14 0.36 0.00 0.14 0.14    0
```

3.

> scale_shoppingtime = cbind(data$Shopping.within.limited.time.lessens.expenditure,data$More.time.leads.to.more.expenditure,data$Time.is.not.a.crucial.factor.affecting.expenditure)
> alpha(scale_shoppingtime)

Raw alpha value: 0.66

Scale: shopping time

Items: Shopping within limited time lessens expenditure, More time leads to more expenditure, and Time is not a crucial factor affecting expenditure.

```
> scale_shoppingtime = cbind(data$Shopping.within.limited.time.lessens.expenditure,data$More.time.leads.to.more.expenditure,8-da$
> alpha(scale_shoppingtime)

Reliability analysis
Call: alpha(x = scale_shoppingtime)

  raw_alpha std.alpha G6(smc) average_r S/N  ase mean  sd median_r
      0.66      0.68     0.6      0.41 2.1 0.16  4.9 1.5     0.43

 lower alpha upper     95% confidence boundaries
0.36 0.66 0.97

 Reliability if an item is dropped:
   raw_alpha std.alpha G6(smc) average_r  S/N alpha se var.r med.r
V1      0.44      0.45    0.29      0.29 0.81     0.29    NA  0.29
V2      0.60      0.61    0.43      0.43 1.54     0.21    NA  0.43
V3      0.65      0.68    0.51      0.51 2.11     0.17    NA  0.51

 Item statistics
    n raw.r std.r r.cor r.drop mean  sd
V1 14  0.80  0.83  0.72   0.59  5.5 1.7
V2 14  0.82  0.77  0.59   0.47  4.1 2.4
V3 14  0.71  0.74  0.51   0.40  5.1 1.9

Non missing response frequency for each item
        1    2    3    4    5    6    7 miss
[1,] 0.07 0.00 0.07 0.00 0.21 0.36 0.29    0
[2,] 0.29 0.00 0.07 0.14 0.14 0.14 0.21    0
[3,] 0.07 0.07 0.00 0.14 0.21 0.21 0.29    0
```