The Emotional Intensity Scale in the World Wide Web

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Abstract

The literature and real life examples suggest that the psychometric properties of emotional intensity of a Web site, be examined with regard to the www. First and foremost, an original scale is developed to capture the concept of emotional intensity for Web sites. This Emotional Intensity Scale is demonstrated to have content validity by expert judges. The inter-item reliability is checked using Cronbach Alpha. The discriminant validity of the scale is checked comparing the scores from the developed instrument with the Affect Intensity Measure (Larsen and Diener 1985). Confirmatory Factor Analysis is used, with Emotional Intensity and Affect Intensity Measure as the latent variables. On either of these grounds, the Emotional Intensity scale can be said to discriminate from the Affect Intensity Measure. Overall, the emotional intensity scale is found to have extremely robust psychometric properties.

1. Introduction

The advent of the Internet is arguably one of the most important innovations related to the field of marketing. Its diffusion rate has been quite amazing. Sixty-four percent of Americans age twelve or older have used the Internet in the past year (CyberAtlas, 2000), and retail sales are projected to reach US $ seventy-four billion by 2002 (Forrester Research 2001). There has been a parallel increase in the number of sites, e.g., in March 1999 there were more

than fifty-one million such sites – approximately a sixty percent increase from the thirty-two million hosts in March 1998 (Netsizer Reports, 1999).

In general, the contents of an advertisement may be either rational or emotional.   An example of a rational argument for "Edge," a hypothetical brand of disposable razors, is new advanced honing technique creates unsurpassed sharpness (Petty, Cacioppo, and Schumann, 1983).

On the other hand, real life examples of highly charged emotional appeals of <u>print</u> advertisement campaigns are: Woman's Era magazine (Builds Happy Homes), a women's magazine, Femina (The Joy of Having that One Special Friend), Zen car (If You Desire a Better Field of Vision than the World Car, Fly a Combat Aircraft), Yamaha motorcycle (Finally a bike that Your Mind Wanted. And Your Heart Desired), and Crocin tablet (Are You as worried about your child medication as you are about the ailment?).

Real life examples of emotional appeals in Web sites are as follows: coasterguide.com (I had never really given these thrill monsters a chance). Specifically, thrillride.com for coaster rides at Michigan Adventure Amusement Park (Thrillride! Shivering Timbers). For Gourmet Coffee Club, gourmetcoffeeclub.com (Welcome Coffee Lovers! Pick up a Free Email Account while you are here; If you drink coffee or tea, you are going to love our club). The Harley Owners Group, hog.com (You love motorcycling Imagine sharing that emotion with a world of others who feel the same).   About the G3 notebook from Macintosh, Victor from Texas says (I am in absolute lust). In a testimonial for Znet Internet Services Kara states (I am exceptionally pleased with zNet).   Thus, the literature provides ample evidence that the psychometric properties of emotional intensity of a Web site be examined with respect to the www.

First and foremost, an original scale is developed. The scale captures the concept of emotional intensity for Web sites. It is planned to examine its Reliability and Discriminant Validity. This Emotional Intensity Scale is demonstrated to have content validity by expert judges. The inter-item reliability will be checked using Cronbach Alpha. The construct validity is checked using factor analysis. The discriminant validity is verified using correlation analysis and Confirmatory Factor Analysis. Because the www will probably become the pre – eminent media of the New Millennium, and will become an integral part of the marketing communications strategies of most organizations, the Emotional Intensity Scale is developed for Web sites. This does not preclude it from also being applied to other media, such as print or television. The Research Purpose is already been outlined in the form of the Problem Definition. The research question is posed as follows: What are the psychometric properties of the Emotional Intensity of a Web site?

In the following sections we do four things. First, we define Emotional Intensity of a web site and review the literature on emotions and the. Second, we explicate the Research Methodology in detail. Third, we describe and interpret the results. Fourth, we finish with the conclusions.

2. The Emotional Intensity Scale
2.3 Comparison between Print and Internet Media

With the growth in the use of Internet, the number and types of advertisements has also grown. Contemporary Advertisements on the Internet can be categorized into different types: Banner, Text, Interstitial, Pop-Up, Opt-In Mailing, Web Sites, Rich Media, and Hybrid advertisements. Of these types of advertisements, we selected Web sites, as the unit of analysis, because they are the nearest equivalent to a print advertisement. The remaining categories of advertisements on the World Wide Web suffer from different drawbacks. Specifically, we selected two websites, gap dot com and warrior apparel dot com. Both these are frequently visited apparel sites that contained varrying degree of emotional information.

2.2 Understanding of Emotions

Lacking a clear definition of the term emotions, some authors have attempted to enhance understanding of emotions by more completely specifying their characteristics. One of the clearest explications of these characteristics is proposed by Ortony, Clore, and their colleagues (e.g., Ortony, Clore, and Collins 1988). According to their framework, an emotion is a valenced affective reaction to perceptions of situations. They exclude from the domain of emotion those descriptors that refer to non-valenced cognitions, bodily states, and subjective evaluations. This characterization of affect was adopted for our study.

2.3 Emotional Intensity of a Web site

Petty and Cacioppo (1986) address the issue of what makes arguments persuasive. In developing arguments for a topic, they begin by generating a large number of arguments, both intuitively compelling and specious ones, in favor of some issue. Then, members of the appropriate subject population are given these arguments to rate for persuasiveness. Based on these scores they select arguments with high and low ratings to comprise at least one "strong" and one "weak" message. Subsequently, other subjects are given one of these messages and are told to think about and evaluate it carefully. Following examination of the message, subjects complete a "thought-listing measure", in which they are instructed to record the thoughts elicited by the message. These thoughts are then coded as to whether they are favorable, unfavorable, or neutral toward the position advocated. They define a "strong message" as one containing arguments such that when subjects are instructed to think about the message, the thoughts that they generate are predominantly favorable. Importantly, for positive attitude change to occur, the thoughts should be more favorable than those available prior to message exposure. In contrast, they define a "weak message" as one containing arguments such that when subjects are instructed to think about them, the thoughts that they generate are predominantly unfavorable.

In our study, analogously, *Emotional Intensity* is defined as bits of information contained in a Web site, that are relevant to a persons' subjective determination of an advocated position. Because people hold attitudes for many different reasons, people will invariably differ in the kinds of emotions they feel are central to the merits of any position. This definition of emotional intensity is universally applicable across different media, ranging from the print to the internet.

3. Research Methodology

This section on Research methodology primarily deals with the Research Design .

3.1 Validation of the Emotional Intensity Scale:

For purposes of our study, it is necessary to specify contents of a Web site that the vast majority of a specifiable population finds high and low in Emotional Intensity. There should be enough variance in the data so that we can compare the data from a site high in Emotional Intensity and another low in Emotional Intensity.We wish to compare the Emotional Intensity of two web sites gap.com and warriorapparel.com using the Emotional Intensity Scale.

3.2 Research Design
3.2.1 Measures of Interest:

Web site Emotional Intensity: The primary data collection method is selected. Based on in – depth interviews with three experts the Emotional Intensity Scale was developed. On being given an intuitive explanation of the construct the first expert, a Doctorate in the Behavioral Science, came up with a set of five items. When the second expert, an MBA, was given the set of five items, he came up with four more items and initially did not completely agree with these five items. However, on further explanation, he also agreed with the other five items. The author concurred with these nine items.

For the Web site Emotional Intensity measure a Likert scale is designed to examine how strongly subjects agree or disagree with statements on a 5 – point scale with the following appropriate anchors. The responses over a number of items tapping a particular concept or variable are then averaged for every respondent. The interval scale is used here. The differences in the responses between any two points on the scale remain the same.

3.2.2 Questionnaire:

First, a Likert scale was developed based on the earlier definition for Emotional Intensity of a Web site. Three expert judges were given this study's definition of Emotional Intensity of a Web site. This reflects the Content Validity.

The questionnaire contains questions on other variables that are not germane to the study at hand. Hence they are not discussed further. They will then be instructed to surf for a maximum of half an hour. Next they will be asked questions on the Emotional Intensity Scale using the nine items described above for the first site Later on, the subjects were again asked to surf the second site. Subsequently, they were again administered the Emotional Intensity scale items. Thus, making it a within subjects design. The questionnaire also contained questions on the Affect Intensity Measure.

The subjects will be asked a few questions to ensure that they perused the product Web sites carefully. Subjects will be asked to list as many of the attributes mentioned in the Web site about Gap and WarriorApparel as they could recall.

3.2.3 Procedure:

Two booklets were prepared for the study. The first contained a compilation of instructions. These were first distributed to the respondents. Next, the instructions were explained to the respondents.

Data for the study were collected in the same session. The second booklet comprised of two questionnaires. These were counterbalanced for order effects. The sequence in which the questionnaires were administered was randomized.

The first page of the second booklet explained that the study concerned The Effectiveness of Web sites and told the subjects to answer the initial questions before breaking to surf the Web site. After answering the initial questions, further instructions told the subjects to peruse the site carefully and that the maximum time allotted to surf is half an hour. After surfing the site the subjects were asked to respond to the remaining questions. This process was repeated for the second site. Upon completion of the questionnaire, the subjects were thoroughly debriefed, thanked for their participation, and dismissed.

3.2.4 Sampling Plan:

The target population is described as individuals who have surfed at least once and residing in a metropolitan city. The data were collected from a University that consisted of predominantly male students. Only they were selected in the sample. The sampling frame is a list of population members used to obtain a sample.

Though judgmental sampling usually is associated with a variety of biases, there are situations where judgmental sampling is useful and even advisable. First there are times, such as in our study, when probability sampling is either not feasible or prohibitively expensive. A list of individuals who have surfed at least once will be impossible to obtain. Second, in some sense the sample is deliberately biased. The emotional intensity of a Web sites is evaluated, University students typically have a high need for cognition. If it is found that they are affected by the emotional intensity of a Web site, then it can be assumed that this variable will definitely have an impact on the larger population

3.2.5 Sample Size:

For a paired comparison t – test a sample size of 30 is considered to be sufficient. The ten items were administered as a scale to a sample of 125 subjects to measure the internal consistency or inter-item correlation.

3.2.6 Sample Description:

The subjects were undergraduate and postgraduate students at a large university in Mumbai. The sample consisted of males ranging in age from 18 to 29 years. The mean age is 22.56. They were studying in different programs - Master of Management, Bachelor of Technology, Master of Science, Master of Technology, and PhD. They were from different

disciplines among them being Management, Information Technology, Civil Engineering, Mathematics. The branch and corresponding frequency are displayed in Table 1

[Take in Table 1]

3.2.7 Analysis:

Data are collected from a total of 125 subjects. Descriptive statistics where frequency distributions or relationships between variables are described are used. Frequency distributions for all the variables are tabulated using SPSSX. Measures of central tendency such as mean, standard deviation, median, and range are computed. The Pearson's Rank Correlation Coefficients are calculated. The construct validity of Emotional Intensity of a Web site is examined using Confirmatory Factor Analyses.

The Reliability of Emotional Intensity of a site is computed using the inter-item correlation measure Cronbach Alpha using SPSSX. The discriminant validity of the Emotional Intensity construct is examined using Pearson's Rank Correlation Coefficient between the average of the Emotional Intensity measures and the Affect Intensity Measure. The Discriminant Validity is looked at using LISREL models.

4. Results
4.1 Preliminary Results
4.1.1 Descriptive Statistics

The Descriptive Statistics for the Emotional Intensity items are displayed in Table 2. The table is in ascending order of the mean values. The values on all the measures for sites, gap.com and warriorapparel.com are taken into account for the Descriptive Statistics. The Valid N, list-wise is 228. The value of N is higher because the descriptive statistics are analyzed and presented in a between subjects fashion. The range of values is 1 to 5. Only one item RCLUTTER has been recoded. The means of the measures across both sites vary from 2.21 to 3.50, while the standard deviations vary from 1.19 to 1.27.

[Take in Table 2]

4.1.2 Pearson's Correlation Matrix of Emotional Intensity Measures:

The Pearson's Correlation Matrix of Emotional Intensity Measures is depicted in Table 3. The data are considered to have interval properties. From an initial analysis of all the nine measures of emotional intensity it is found that the recoded clutter measure is not significantly correlated with the remaining eight measures. Thus, it is discarded from further analyses. As can be seen from the table all the Pearson's Correlation Coefficients are significant at the 0.01 level (2-tailed) level.

[Take in Table 3]

4.2 Psychometric Properties of Emotional Intensity of a site
4.2.1 Internal consistency reliability of the Emotional Intensity Scale:

The computation of inter-item correlations, the Cronbach alpha, was done using 8 items. The mean value of the scale is 23.84, while the standard deviation is 7.8. The mean of the item means is 2.98, while the average variance is 1.45. In the initial analysis the reliability was computed for all the nine items including RCLUTTER. The coefficient alpha is 0.89.

A further analysis was conducted with only eight items. The Reliability Coefficient for all the eight items, excluding of clutter is 0.92, an extremely high value. The first hypothesis that the internal consistency reliability represented by the Cronbach alpha is greater than 0.90 is accepted. This indicates that the Emotional Intensity scale is highly reliable. Generally, a cut-off of 0.90 is considered to be more than sufficient to establish reliability of a scale. Thus, if at all there is an error in including extent of clutter, it is on the conservative side.

4.2.2 Construct Validity of Emotional Intensity of a Web site:

Exploratory Factor Analyses were conducted. Construct validity is established using Factor Analysis, a multivariate technique, which would confirm the dimensions of the concept operationally, defined, as well as indicates which of the items are most appropriate for each dimension. In our study, *Emotional Intensity* is defined as bits of information contained in a Web site, that are relevant to a persons' subjective determination of an advocated position. Thus, as per the second hypothesis we anticipate Emotional Intensity of a web site to be uni - dimensional.

In the first analysis the Maximum Likelihood Method of extraction was used with eigen value greater than 1 criterion was used for factor extraction. The recoded variable RCLUTTER is included in this analysis. This yields a two-factor solution. However, for the second factor the eigen value at 1.01 is marginally greater than 1 and additional variance explained is only 6.2 %. The scree plot had a knee at two factors. Further, the factor correlation is as high as .74. The Pattern Matrix does not indicate an insightfully interpretable two-factor solution. To conclude, a two factor solution does not fit the data well.

In the second analysis the number of factors was fixed to one. The recoded variable RCLUTTER is also included in this analysis. This yields a one-factor solution with 54 % of the variance explained. The communalities for RCLUTTER remain negligible.

For the third and final analysis the number of factors is fixed to one and the variable RCLUTTER is omitted from the analysis. The Initial Eigenvalues are displayed in table 4. The Extraction Sums of Squared Loadings is also shown. The Goodness of Fit Test is significant at the 0.01 level. Table 5 shows the Rotated Factor Matrix and the Goodness of Fit Test. To sum up, the one factor solution fits the data most appropriately.

[Take in Table 4]

[Take in Table 5]

4.2.3 Discriminant Validity of Emotional Intensity of a site Using Pearson's Correlation:

Computing the correlation between the Emotional Intensity Scale and Affect Intensity Measure (Larsen and Diener, 1987) checks the Discriminant Validity. The Affect Intensity Measure is a reflection of the affective response of an individual. When exposed to emotion-eliciting events, certain individuals consistently manifest stronger or more intense emotional responses.

The Pearson's correlation figure of 0.27 is significant at the 0.01 level (2-tailed). Please see Table 6. This value is computed excluding the variable RCLUTTER. In the Behavioral Sciences this is considered a sufficiently low value to indicate strong Discriminant Validity. Therefore, the correlation analysis provides support for the third hypothesis that there is discriminant validity between the Emotional Intensity Scale and the Affect Intensity Measure.

[Take in Table 6]

4.2.4 Discriminant Validity of Emotional Intensity of a site Using Structural Equation Modeling:

Partial Disaggregation Model: A fine – grained representation of constructs can be performed by use of the partial disaggregation model. Here each component or dimension is represented as a separate latent variable indicated by composites of subscales. Please see Figure 1. The first – order partial disaggregation model estimates the degree of correspondence between each component and its respective measures, as well as the respective error variances. Moreover, separate estimates are provided for correlations among dimensions, which can be used to assess the degree of discrimination between dimensions. These correlations are corrected for attenuation as a consequence of standard estimation procedures.

[Take in Figure 1]

Four models were run using LISREL (M1 to M4). In all the four models two measures were used for the Affect Intensity dimension. These two measures comprise of composites of the odd and even items of the already established Affect Intensity scale (Larsen and Diener 1987). The first model consisted of all the eight items of the Emotional Intensity scale. In contrast the second, third, and fourth models consisted of composites of items from the Emotional Intensity scale.
M2 – first & third items; second & fourth items; fifth & seventh items; and sixth & eight items
M3 – first, third, & fifth items; second, fourth, & sixth items; seventh & eights items
M4 – odd numbered items and even numbered items

The guidelines for forming the composites are: when the number of items per dimension is relatively small – say, as many as five to seven items, it seems prudent to form two composites for each dimension in which each composite is a sum of items. When nine or more items exist per dimension in a scale, it is feasible to form three or more composites as indicators for each dimension.

Assessment of Overall Model Fit: The degree of correspondence between any particular model and the data can be assessed with the use of several measures. The chi – square goodness - of –

fit indicates the discrepancy between a hypothetical model and data. Significant values of the chi – square goodness – of – fit test indicate that the data and model deviate in a fundamental way and that the model should be rejected. A non – significant chi – square goodness – of – fit test with p > = 0.05, say (e.g., Bentler 1989), suggests that a model is a reasonable representation of the data.

Because the chi – square test is sensitive to sample size and can lead to a rejection of a model differing in a trivial way from the data for large sample sizes – and conversely can result in the acceptance of a model with important differences from the data for small sample sizes – it is prudent also to examine other measures of fit. McDonald and Marsh (1990) proposed the Relative non - centrality index (RNI) in this regard.

In LISREL, there is an identical Index, known as the Comparative Fit Index (CFI), proposed by Bentler and Bonett (1980). These measure the amount of variance accounted for by a model in a practical sense. Following the rule –of – thumb suggested by Bentler and Bonnet (1980), RNI values greater than or equal to about 0.90 are taken to indicate a satisfactory it from a practical standpoint.

Findings for Partial Disaggregation Model: Table 7 summarizes the findings for the first – order, two factor partial disaggregation model M2 (see Figure 2). This model fits the data well χ^2(8, N = 240) = 83.63, p$\cong$ 0.00, CFI = .92.

The model M3 with first, third, & fifth items; second, fourth, & sixth items; seventh & eights items forming composites of the Emotional Intensity scale has a good χ^2 value and a CFI value of 0.99 and can be said to fit the data equally well. However, it suffers from the drawback that for the λ of the even items is greater than one for the Reference Variable Solution.

The model M4 with odd numbered items and even numbered items as composites for the Emotional Intensity scale also has an appropriate χ^2 value and a CFI of 0.99. However, it also suffers from the drawback that the λ for the even items is greater than 0.92. Further, Qplot of standardized residuals is not attractive. Thus, the model M4 is discarded.

For M1, with all eight item of the Emotional Intensity scale loading on one factor, the CFI is 0.87, below the cut off of 0.90. Factor loadings are high, and error variances are low. Therefore, the model M1 is not preferred.

The first – order partial disaggregation model assumes that the dimensions are distinct – that is, the measures of the separate dimensions are presumed to achieve discriminant validity between dimensions. The degree of discriminant validity is inversely proportional to the magnitude of the correlations among the first – order factors, that is the ϕs. Strong disciminant validity will be achieved if the ϕs are non - significant or small; weak discriminant validity will be achieved when the ϕs are high but less than 1.00 by an amount greater than twice the standard error (SE) of the estimate ϕ. Lack of discrimination in a strict statistical sense occurs when the ϕs are within 2 SE of 1.00.

We now present the results of model M2 in the context of Discriminant validity. The factors corresponding to the Emotional Intensity and Affect Intensity are not highly correlated with $\phi = 0.32$. This low value is also insignificant with p = 0.07. In the statistical sense 0.32 is less than 1.00 by an amount of 0.14 (2 SE). These results conclusively indicate the discriminant validity of the Emotional Intensity Scale with the Affect Intensity Measure. These results conclusively support the third hypothesis.

[Take in Table 7]

4.2.5 Validation of the Emotional Intensity Scale:

The content validity, the construct validity, and the discriminant validity sections have demonstrated that the Emotional Intensity differs greatly over Web sites. For any web site, there seems to be surfers who rate web sites as being high or low Emotional Intensity. Additionally, the average level of Emotional Intensity varies across different web sites. For example, respondents rate gap.com 3.28 on the Emotional Intensity Scale and rated warriorapparel.com 2.70 on the Emotional Intensity Scale. This demonstrates that the same people perceive different Web sites differently.

To examine the psychometric properties, and for validation purposes two Web sites are selected, gap.com and warriorapparel.com Then a study is conducted, in which members of the appropriate subject population were given these sites to rate for Emotional Intensity. There were nine measures of Emotional Intensity. The measures for the two sites are listed pair-wise, with the first measure for the gap.com site and the second for the warrioapparel.com site. Attractiveness (Attract, Attractwar); Enjoyment (Enjoy, Enjwar); Pleasantness (Pleas, Pleaswar); Satisfaction (Sat, Satwar); Smoothness (Smooth, Smwar); Book-Mark (Book; Bookwar); Friend (Friend, Friwar); Favourite (Favourt, Favwar); and Clutter (Pclutter, Pclwar). A paired comparison t-test was conducted to test for differences in the two sites.

To investigate the possibility of rating the Emotional Intensity of a web site, the scale was administered for two web sites. Each subject rated two web sites: (1) gap.com (2) warriorapparel.com For this data collection, the sites were counterbalanced across subjects. The related measures t-test was significant at $t(116) = 5.52$, $p < .001$; therefore the two sites were rated differently on the Emotional Intensity Scale. Please see the first row in Table 8.

The paired comparison t-tests for the different items of the Emotional Intensity Scale for the sites gap.com and warriorapparel.com are shown in Table 9. The results were highly significant for all the measures of emotional intensity except recoded clutter, with p at the 0.01 level. For clutter, the p value is 0.02. However, against the grain the mean paired difference is negative. This indicates that the two sites are significantly different on the clutter measure. However, the warriorapparel.com is more highly rated on only this item. Thus, it is dropped from any other analyses.

[Take in Table 8]

5. Conclusions

The Emotional Intensity Scale was demonstrated to have content validity by expert judges. The inter-item reliability was checked using Cronbach Alpha, which is as high as .92. The discriminant-related validity of the scale was checked comparing the scores from the developed instrument with the Affect Intensity Measure. This resulted in a relatively high significant Pearson's correlation of 0.27. Confirmatory Factor Analysis was used, with Emotional Intensity and Affect Intensity Measure as the latent variables. The factor correlation, for the model that met the fit criteria, is as low as 0.32. Further, it is non - significant. On either of these grounds, the Emotional Intensity scale can be said to discriminate from the Affect Intensity Measure. Overall, the emotional intensity scale is found to have extremely robust psychometric properties.

In view of the growing importance of the www, marketers will be forced to consider using it in their repertoire to a greater or lesser extent in the near future. As with the emergence of any new medium, theories and models on a whole range of marketing issues and variables will have to be proposed, tested and validated anew for the www. What we have done here is to examine a few particular dimensions using certain logical models and theories proven in the context of print media. Other models and theories proven in other media, or altogether new theories and models may have to be proposed and studied.

Marketing researchers must remember theories involving a hierarchy of communications effects that identify steps people go through to learn and acquire a product (Belch and Belch 1995). According to these models, awareness and interest must be developed before people purchase high involvement products.

In the context of Web sites, receivers must also sometimes move through the desire stage to the action stage, e.g., in e-commerce Web sites. In a health care scenario, it has been pointed out that (Molloy 2000); "On-line advertising is still a mystery to the vast majority of long-term care providers." One of the first tips that he gives for on-line advertising effectiveness is to make the Web site a part of ones overall strategy, if not all of it.

The first major contribution of the study is the development of an original scale straddling the areas of emotions and the www. The second major contribution is the testing of the psychometric properties of the Emotional Intensity scale for web sites. Specifically, the internal consistency reliability, the content validity, construct validity, and the discriminant validity. The content validity scale was developed using the opinions of expert judges. The psychometric properties of reliability, using Cronbach alpha, is above the cut – off of 0.90. The construct validity is established using factor analysis, and the Emotional Intensity Scale was found to be uni – dimensional. The Discriminant Validity results, using Correlation and Confirmatory Factor Analysis, are also extremely robust. Third the Emotional Intensity Scale is validated on two web sites gap.com and warriorapparel.com. The Emotional Intensity of the gap.com site is statistically higher than the warriorapparel.com site.

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Tables

Table 1

Sample Characterstics (Branch-Wise Frequency)

Branch	Frequency	Percent
Management	39	31.2
Electrical Engineering	13	10.4
Computer Science Engg	2	1.6
Mechanical Engineering	16	12.8
Chemical Engineering	21	16.8
Information Technology	8	6.4
Statistics & Informatics	3	2.4
Mathematics	1	.8
Civil Engineering	11	8.8
Metallurgy	5	4.0
Total	119	95.2

Table 2

Descriptive Statistics Of Emotional Intensity Measures

PARTICULARS	N	MEAN	Std. Deviation
FAVOUR	246	2.21	1.28
BOOK	245	2.26	1.19
FRIEND	246	2.50	1.27
PLEAS	247	3.20	1.23
SAT	246	3.21	1.18
ENJOY	246	3.21	1.18
SMOOTH	243	3.47	1.22
ATTRACT	246	3.49	1.22
RCLUTTER	243	3.50	1.19
VALID N (list wise)	228		

Table 3

Pearson's Rho Matrix Of Emotional Intensity Measures

		Attract	Enjoy	Pleas	Sat	Smooth	Book	Friend	Favor
Attract	Pearson Correlation	1.00	.58	.60	.55	.57	.47	.48	.43
Enjoy	Pearson Correlation	.58	1.00	.84	.73	.60	.61	.64	.6
Pleas	Pearson Correlation	.60	.84	1.00	.73	.62	.59	.59	.60
Sat	Pearson Correlation	.55	.73	.73	1.00	.56	.55	.53	.56
Smooth	Pearson Correlation	.57	.60	.62	.56	1.00	.53	.53	.56
Book	Pearson Correlation	.47	.61	.59	.55	.53	1.00	.79	.75
Friend	Pearson Correlation	.48	.64	.59	.53	.53	.79	1.00	.74
Favor	Pearson Correlation	.43	.63	.60	.56	.56	.75	.74	1.00

All Correlation is significant at the 0.01 level (2-tailed).
  A Listwise N = 228

Table 4

Factor Analysis For Emotional Intensity

Factor	Initial Eigenvalues		Extraction Sums of Squared loadings	
	Total	% of Variance	Total	% of Variance
1	5.26	65.75	4.86	60.78
2	.84	10.50		
3	.54	6.80		
4	.42	5.35		
5	.30	3.85		
6	.26	3.24		
7	.21	2.61		
8	.15	1.90		

Extraction Method: Maximum Likelihood.

Table 5
Rotated Factor Matrix

	Factor
	1
ENJO	.88
PLEA	.87
SAT	.79
FRIEN	.76
FAVOU	.76
BOO	.76
SMOOT	.71
ATTRAC	.66

Extraction Method: Maximum

Goodness-of-fit

Chi-Square	df	Sig.
187.15	20	.00

Table 6

Correlation Between Emotional Intensity And Affect Intensity

	AIM	El
Affect Intensity Measure (Pearson Correlation)	1.000	.270
Emotional Intensity(Pearson Correlation)	0.27	1.000

**. Correlation is Significant at the 0.01 level

N=120

TABLE 7
FINDINGS FOR PARTIAL DIAGGREGATION MODEL

Key Parameter Estimates

Factor Loadings		Error Variance		Factor Correlation	
0.83 (0.05)	0.00	0.32	1.00		
0.85 (0.05)	0.00	0.28	0.32 (.07)	1.00	
0.88 (0.05)	0.00	0.22			
0.86 (0.05)	0.00	0.27			
0.00	0.82 (0.09)	0.32			
0.00	0.87 (0.09)	0.24			

Table 8
T-Tests For Paired Differences

	Paired					
	Mean	Std Deviation	Std.error ‾Mean	t	df	Sig (2-tailed)
Average Emotional Intensity	.59	1.16	.107	5.52	116	.00
Attractiven	.78	1.53	.142	5.51	115	.00
Enjo	.53	1.52	.140	3.79	115	.00
Pleasa	.49	1.53	.141	3.50	116	.00
Satisfacti	.49	1.56	.144	3.39	115	.00
Smoothn	.72	1.40	.132	5.47	112	.00
Bookm	.56	1.30	.117	4.76	115	.00
Frien	.61	1.36	.126	4.83	115	.00
Favouri	.59	1.39	.129	4.61	115	.00
Recoded Clutter	.-.29	1.31	.123	-.36	112	.02

Figures

Figure 1

Two Factor Partially Diagregated Model