Chapter 5

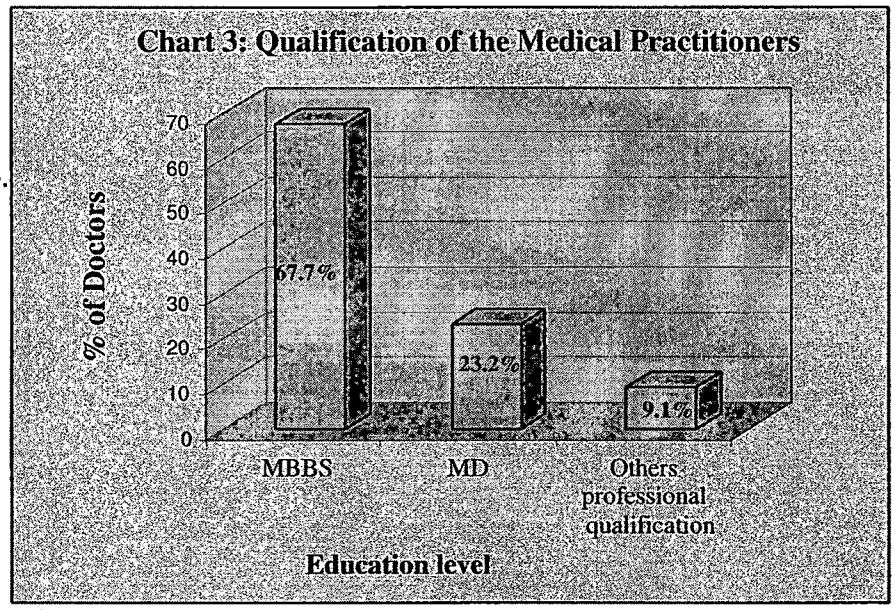
Data Interpretation and Analysis

SECTION I DOCTORS RESPONSE

I. Doctors Response: Descriptive Analysis

5.1 Doctors background

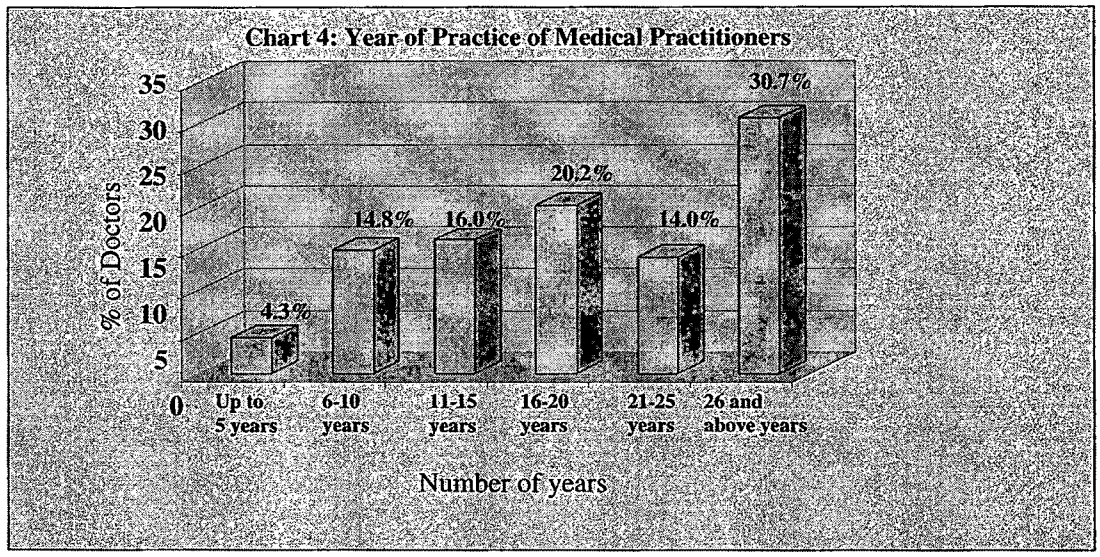
There were 67.7 per cent medical practitioners having MBBS qualification; 23.2 per cent were having MD and the rest holds other professional qualification (Appendix I,Table 9).



5.1.1 Years of Practice of the medical practitioners

There were 4.3 per cent medical practitioners having up to 5 years of medical practice, 14.8 per cent with 6 to 10 years of practice, 16 per cent with 11 to 15 years of practice,

20.2 per cent with 16 to 20 years of practice, 14 per cent with 21 to 25 years of practice and 30.7 per cent with above 26 years of practice (Appendix I, Table 9).



5.1.2 Income of the medical practitioners

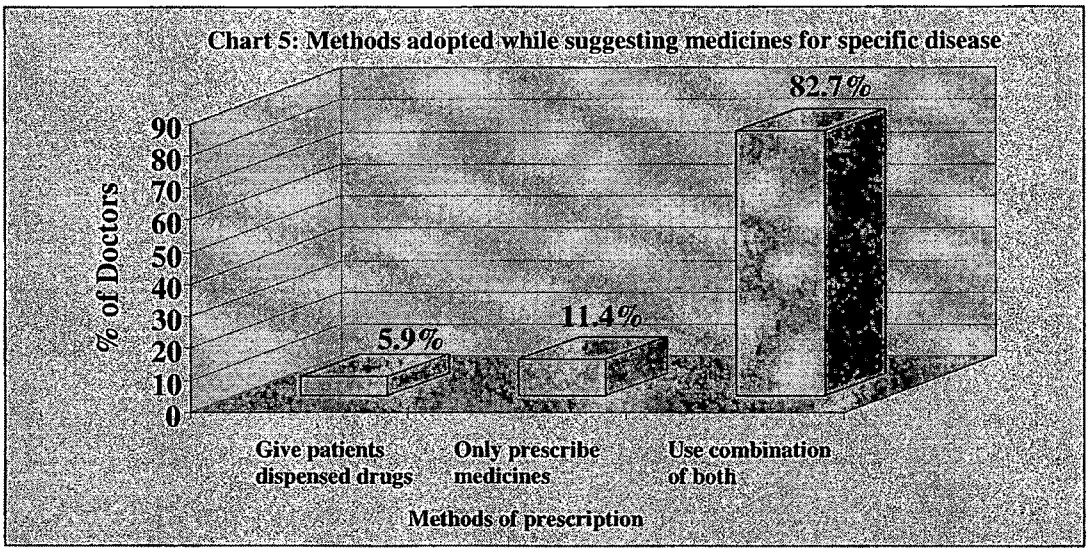
There were 97.6 per cent of doctors having monthly income of more than one lakh rupees and the rest 2.4 per cent were having their monthly income between 2 lakh to 3 lakh rupees (Appendix I, Table 9).

5.2 Doctor's mode of practice by cities

There were around 98.8 per cent doctor's practices through their own clinic. Rest 1.2 per cent doctors practice through private/ government hospitals (Appendix I, Table 10).

5.3 Methods adopted while suggesting medicines for a specific disease

There were 5.9 per cent doctors who give patients dispensed drugs (Appendix I, Table 10). 11.9 percent doctors gave only prescription to purchase drugs from pharmacist. Rest 82.7 per cent doctors gave drugs to the patients by combination of both the methods.



5.4 Attitudinal Information

5.4.1 The Process of Consultation

Most doctors in all the selected cities have relatively strong opinion and strongly agree that they prescribe fixed set of brands for specific disease (Appendix I, Table 11). Most of the doctors in all the selected cities have relatively diverse opinion and marginally favour that they use the drug on few patients and monitor the efficacy when new drugs are introduced. Doctors in all the selected cities have relatively strong opinion and strongly favour that they seek information regarding the efficacy of the new drug from the published findings. Doctors in all the selected cities have relatively diverse opinion

and marginally favour that they believe on medical representative's brief on the information of the new drug. Doctors in all the selected cities have marginally diverse opinion and strongly favour that when he/she take a history of my patients, he/she elicit their personal health beliefs about their illness.

5.4.2 Sources of information for prescribing medicines

Most of the doctors in all the selected cities have relatively diverse opinion and strongly favour that their normal practice is to seek regular information of updates about the promotional schemes and samples from the medical representatives (Appendix I, Table 12). Doctors in all the selected cities have relatively diverse opinion and marginally favour that frequency of visits by medical representative provides the confidence on the authenticity and efficacy of specific medicine brand. Doctors in all the selected cities have relatively diverse opinion and strongly favour that frequency of visits by medical representative helps me in deciding the preference set of brands of medicine for specific disease. Doctors in all the selected cities have relatively diverse opinion and strongly favour that when they receive written promotional material from drug companies, they read it thoroughly. In all the selected cities doctors have relatively diverse opinion and strongly favour that they refer medical journals to update themselves with the latest developments in their field. In all the selected cities doctors have relatively diverse opinion and strongly favour that they read drug advertisements while reading medical journals.

5.4.3 Prescription Behaviour

While responding on their prescription behaviour, doctors in all the selected cities have relatively diverse opinion and marginally favour that when they prescribe, they compare the costs of different medicine brands which have the same efficacy (Appendix I, Table 13). While responding on regarding when they are uncertain about an aspect of drug treatment, their first action, before writing a prescription is to check the medical literatures, they marginally favoured the statement but have a diverse opinion. They marginally agree but have a diverse opinion on whether the decision on final choice of brands, is based on the regular visits from local retail pharmacists to request for prescribing certain set of brands. Respondents marginally agree but have a diverse opinion on the statement that they sometimes follow consultation from their known physicians in deciding the drug options for specific disease of patients. Respondents agreed but have a diverse opinion on the statement that they mostly prefer prescribing the medicine brands that are effectively promoted

5.4.4 Cautiousness about fixed set of medicinal brands

While responding to the statement that whether they normally prescribe patients the pre-determined set of medicinal brands for specific disease, respondents favour the statement but were marginally diverse in their opinion (Appendix I, Table 14). Respondents marginally favoured across all the selected cities but were marginally diverse in their opinion regarding decision on the final choice of medicine brands for specific disease is

based on gifts, samples, promotional schemes and frequent visits by medical representatives.

5.4.5 Relationship with Drug companies and Retail pharmacists

Respondents marginally favoured across all the selected cities but were marginally diverse in their opinion regarding prescribing the medicine brands of drug companies with which they are most comfortable (Appendix I, Table 15). On the opinion that whether they feel that the relationships with drug companies can be build based on the frequency of launch of promotional schemes, gifts, sample of new drugs and visits from company's medical representative, respondents marginally favoured but highly diverse across all the selected cities. Respondents marginally favoured but were highly diverse in their opinion that relationship with local retail pharmacist also plays major role in deciding final set of medicine brands for specific disease.

5.4.6 Sources of detail inquiries about the medicine brands

Across all the selected cities, most medical practitioners responded that they most often refer to medical magazines for detail enquiry about the medicine brands (Appendix I, Table 16). But while responding on their opinion on the medical representative's brief as detail enquiry about the medicine brand, many said they uses it sometimes whereas relatively more proportion of respondents uses it most often. While responding on the statement that they make detail enquiry about the medicine brands from company promotional ads and materials, medical practitioners were evenly split over their

responses as some uses it rarely, some uses it sometimes and remaining uses it most often. Most medical practitioners responded that they seek opinion rarely from other medical practitioners about the medicine brands.

II. Doctors response: Bivariate and Multivariate analysis

Six composite variables and ***twenty five*** variables i.e. V1 to V25, were used separately for ANOVA. Similarly, ***six*** composite variables and ***twenty seven*** variables i.e. V1 to V27 were used separately for Factor analysis. The two separate variable sets used for ANOVA are mentioned below:

Six composite variables:

1. The process of consultation. (Forster et al., 1991, Baker et al., 1991)
2. Sources of information for prescribing medicine. (Forster et al., 1991, Coleman et al., 2000, Ryan et al., 1990, Carthy et.al., 2000)
3. Prescription behaviour. (Lagerløv et al., 2000, Berndt et al., 1994)
4. Cautiousness about fixed set of Medical Brands. (Carrin et al., 1987 and Zwanenberg et al., 1987, Audit Commission, 1996, Avery et al., 2000)
5. Relationship with Drug companies & Retail pharmacists. (Watkins et.al, 2003, Gönül et al., 2001)
6. Source of Inquiries. (Nelson et al., 1974, Milgrom & Roberts 1982, 1986)

Twenty five construct variables:

V1: I prescribe fixed set of brands for specific disease

V2: To use the drug on few patients and monitor

V3: To seek information from published findings on the efficacy of new drug

V4: Believe on medical representative briefs on the information about the new drug

V5: When I take a history of my patients, I elicit their personal health beliefs about their illness

V6: My normal practice is to seek regular information of updates about the promotional schemes and samples from the medical representatives

V7: Frequency of visits by medical representative provide me the confidence on the authenticity and efficacy of specific medicine brand

V8: Frequency of visits by medical representative helps me in deciding the preference set of brands of medicine for specific disease

V9: When I receive written promotional material from drug companies, I read it thoroughly

V10: I refer medical journals to update myself with the latest developments in my field

V11: I read drug advertisements while reading medical journals

V12: When I prescribe, I compare the costs of different medicine brands which have the same efficacy

V13: When I am uncertain about an aspect of drug treatment, my first action, before I write prescription is to check the medical literatures

V14: My decision on final choice of brands, is based on the regular visits from local retail pharmacists to request me for prescribing certain set of brands

V15: I sometimes follow consultation from my known physicians in deciding the drug options for specific disease of my patients

V16: I mostly prefer prescribing the medicine brands that are effectively promoted

V17: I normally prescribe my patients the pre-determined set of medicine brands for specific disease

V18: Gifts, samples, promotional schemes and frequent visits by medical representatives, helps me to decide my final choice of medicine brands for specific disease

V19: I prescribe medicine brands of drug companies with which I am most comfortable

V20: I feel that relationships with drug companies can be build based on the frequency of launch of promotional schemes, gifts, sample of new drugs and visits from company's medical representative

V21: Relationship with local retail pharmacist also plays major role in deciding final set of medicine brands for specific disease for my patients

V22: Make detail enquiry about the medicine brands from medical magazines

V23: Make detail enquiry about the medicine brands from medical representative's brief

V24: Make detail enquiry about the medicine brands from company promotional ads & materials

V25: Make detail enquiry about the medicine brands from other medical practitioners

5.5 ANOVA (Analysis of variance)

5.5.1 ANOVA for qualification categories and 6 composite variables

It can be seen from the ANOVA[†] (Appendix I, Table 17), that *F statistic* value (13.807) for the first composite variable at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that qualification categories do not have any significant impact on the *process of consultation.*

The *F statistic* value (0.513) for the second composite variable at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that qualification categories do have a significant impact on the *source of information for prescribing medicine brand.*

The *F statistic* value (3.108) for the third composite variable at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that qualification categories do not have any significant impact on the *prescription behaviour.*

The *F statistic* value (7.782) for the fourth composite variable at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that qualification categories do not have any significant impact on the *cautiousness about fixed set of medicine brands.*

[†] Malhotra, Naresh K., Marketing Research: An applied orientation, 4e, Pearson education, 2005, pg. 497-505.

The *F statistic* value (7.678) for the fifth composite variable at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that qualification categories do not have any significant impact on the *relationship with the drug companies and retail pharmacists.*

The *F statistic* value (6.878) for the sixth composite variable at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that qualification categories do not have any significant impact on the *sources of inquiries.*

Inference: It can be inferred that qualification categories i.e. MBBS, MD, Other professional qualifications do not have any significant impact on the *process of consultation,* the *prescription behaviour,* the *cautiousness about fixed set of medicine brands,* and the *relationship with the drug companies and retail pharmacists.* However, these qualification categories have significant impact on the *sources of information for prescribing medicine brand.* **The implications from the above findings are that with the medical practitioner evolves a specific approach for consultation, develops a distinct prescription behaviour, a preference set of medicine brands for a specific disease and builds a healthy relationship with the drug companies and pharmacists due to factors other than the level of education. But level of education of a medical practitioner does affect their approach in gathering information about a medicine brand for a specific disease.**

5.5.2 ANOVA for the practicing years and 6 composite variables

It can be seen from the ANOVA (Appendix I, Table 18), that *F statistic* value (10.646) for the first composite variable at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the practicing year categories do not have any significant impact on the *process of consultation*.

The *F statistic* value (9.588) for the second composite variable at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the practicing year categories do not have any significant impact on the *source of information for prescribing medicine brand*.

The *F statistic* value (10.549) for the third composite variable at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the practicing year categories do not have any significant impact on the *prescription behaviour*.

The *F statistic* value (4.789) for the fourth composite variable at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the practicing year categories do not have any significant impact on the *cautiousness about fixed set of medicine brands*.

means that qualification categories do not have any significant impact on the opinion that they *prescribe fixed set of medicine brands for a specific disease.*

The *F statistic* value (9.419) for variable V2 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that qualification categories do not have any significant impact on their opinion that *they use the drug on few patients and monitor.*

The *F statistic* value (11.780) for variable V3 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that qualification categories do not have any significant impact on their opinion that *they seek information from published findings on the efficacy of new drug.*

The *F statistic* value (3.362) for variable V4 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that qualification categories do not have any significant impact on the statement that *they believe on medical representative briefs on the information about the new drug.*

The F statistic value (2.335) for variable V5 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that qualification categories do have a significant impact on their opinion that *when they take a history of patients, they elicit*

patient's personal health beliefs about the disease.

The F statistic value (2.691) for variable V6 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that qualification categories do have a significant impact on their opinion that *their normal practice is to seek regular information of updates about the promotional schemes and samples from the medical representatives.*

The F statistic value (2.041) for variable V7 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that qualification categories do have a significant impact on their opinion that *frequency of visits by medical representative provides confidence on the authenticity and efficacy of specific medicine brands.*

The F statistic value (0.642) for variable V8 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that qualification categories do have a significant impact on their opinion that *frequency of visits by medical representative helps in deciding the preference set of medicine brands for specific disease.*

The *F statistic* value (0.913) for variable V9 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that qualification categories do have a

significant impact on their opinion that *they read thoroughly the reading materials provided by the drug companies.*

The *F statistic* value (2.699) for variable V10 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that qualification categories do have a significant impact on their opinion that *they refer medical journals to update with the latest development in their fields.*

The *F statistic* value (0.060) for variable V11 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that qualification categories do have a significant impact on their opinion that *they read drug advertisements while reading medical journals.*

The *F statistic* value (6.431) for variable V12 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that qualification categories do not have any significant impact on their opinion that *while prescribing they compare the costs of different medicine brands which have the same efficacy.*

The *F statistic* value (0.647) for variable V13 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that qualification categories do have a

significant impact on their opinion that *when they are uncertain about an aspect of drug treatment, their first action, before writing prescription is to check the medical literatures.*

The *F statistic* value (8.706) for variable V14 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that qualification categories do not have any significant impact on their opinion that *their decision on final choice of medicine brand, is based on the regular visits from local retail pharmacists to request for prescribing certain set of brands.*

The *F statistic* value (1.219) for variable V15 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that qualification categories do have a significant impact on their opinion that *they sometimes follow consultation from their known physicians in deciding the drug options for specific disease.*

The *F statistic* value (0.739) for variable V16 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that qualification categories do have a significant impact on their opinion that *they mostly prefer prescribing the medicine brands that are effectively promoted.*

The *F statistic* value (3.806) for variable V17 at $\alpha = 0.05$ is more than the critical value

(3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that qualification categories do not have any significant impact on their opinion that *they normally prescribe the pre-determined set of medicine brands for specific disease.*

The *F statistic* value (6.788) for variable V18 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that qualification categories do not have any significant impact on their opinion that *gifts, samples, promotional schemes and frequent visits by medical representative, helps them to decide the final choice of medicine brands for specific disease.*

The *F statistic* value (0.579) for variable V19 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that qualification categories do have a significant impact on their opinion that *they prescribe medicine brands with which they are most comfortable.*

The *F statistic* value (12.723) for variable V20 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that qualification categories do not have any significant impact on their opinion that *the relationships with the drug companies can be build based on the frequency of launch of promotional schemes, gifts, sample of new drugs and visits from medical representative.*

The *F statistic* value (1.751) for variable V21 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that qualification categories do have a significant impact on their opinion that *relationship with local pharmacist also plays major role in deciding final set of medicine brands for specific disease.*

The *F statistic* value (19.936) for variable V22 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that qualification categories do not have any significant impact on their opinion that *they make detail enquiry about the medicine brands from medical magazines.*

The *F statistic* value (0.717) for variable V23 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that qualification categories do have a significant impact on their opinion that *they make detail enquiry about the medicine brands from medical representatives brief.*

The *F statistic* value (7.388) for variable V24 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that qualification categories do not have any significant impact on their opinion that *they make detail enquiry about the medicine brands from company's promotional ads and materials.*

The *F statistic* value (6.075) for variable V25 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that qualification categories do not have any significant impact on their opinion that *they make detail enquiry about the medicine brands from other medical practitioners.*

Inference: It can be inferred that qualification categories i.e. MBBS, MD, Other professional qualifications do not have any significant impact on the variables V1 '*I prescribe fixed set of brands for specific disease*', V2 '*To use the drug on few patients and monitor*', V3 '*To seek information from published findings on the efficacy of new drug*', V4 '*Believe on MR briefs on the information about the new drug*', V12 '*When I prescribe, I compare the costs of different medicine brands which have the same efficacy*', V14 '*My decision on final choice of brands, is based on the regular visits from local retail pharmacists to request me for prescribing certain set of brands*', V17 '*I normally prescribe my patients the pre-determined set of medicine brands for specific disease*', V18 '*Gifts, samples, promotional schemes and frequent visits by MRs, helps me to decide my final choice of medicine brands for specific disease*', V20 '*I feel that relationships with drug companies can be build based on the frequency of launch of promotional schemes, gifts, sample of new drugs and visits from company's MR*', V22 '*Make detail enquiry about the medicine brands from medical magazines*', V24 '*Make detail enquiry about the medicine brands from company promotional ads & materials*' and V25 '*Make detail enquiry about the medicine brands from other medical practitioners*'. However, these qualification categories have significant impact on the variables V5 '*When I take a history of my patients, I elicit their personal health beliefs*

about their illness', V6 '*My normal practice is to seek regular information of updates about the promotional schemes and samples from the MRs*', V7 '*Frequency of visits by MR provide me the confidence on the authenticity and efficacy of specific medicine brand*', V8 '*Frequency of visits by MR helps me in deciding the preference set of brands of medicine for specific disease*', V9 '*When I receive written promotional material from drug companies, I read it thoroughly*', V10 '*I refer medical journals to update myself with the latest developments in my field*', V11 '*I read drug advertisements while reading medical journals*', V13 '*When I am uncertain about an aspect of drug treatment, my first action, before I write prescription is to check the medical literatures'*, V15 '*I sometimes follow consultation from my known physicians in deciding the drug options for specific disease of my patients*', V16 '*I mostly prefer prescribing the medicine brands that are effectively promoted*', V19 '*I prescribe medicine brands of drug companies with which I am most comfortable*', V21 '*Relationship with local retail pharmacist also plays major role in deciding final set of medicine brands for specific disease for my patients*' and V23 '*Make detail enquiry about the medicine brands from medical representative's brief*'. **Thus, the implications from the above findings are that the professional qualification does not have any impact over medical practitioner's belief on the set of brands for specific disease, use of new drugs, prescription criteria and relationship with drug companies and pharmacists. But professional qualification does have an impact over the prescription practice.**

5.5.4 ANOVA for practicing years and twenty five construct variables

It can be seen from the ANOVA (Appendix I, Table 20), that *F statistic* value (2.001) for

variable V1 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the practicing year categories do have a significant impact on the opinion that *they prescribe fixed set of medicine brands for a specific disease.*

The *F statistic* value (7.575) for variable V2 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the practicing year categories do not have any significant impact on their opinion that *they use the drug on few patients and monitor.*

The *F statistic* value (10.242) for variable V3 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the practicing year categories do not have any significant impact on their opinion that *they seek information from published findings on the efficacy of new drug.*

The *F statistic* value (4.201) for variable V4 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the practicing year categories do not have any significant impact on the statement that *they believe on medical representative briefs on the information about the new drug.*

The F statistic value (7.013) for variable V5 at $\alpha = 0.05$ is more than the critical value

(3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the practicing year categories do not have any significant impact on their opinion that *when they take a history of patients, they elicit patient's personal health beliefs about the disease.*

The F statistic value (2.763) for variable V6 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the practicing year categories do have a significant impact on their opinion that *their normal practice is to seek regular information of updates about the promotional schemes and samples from the medical representative.*

The F statistic value (5.268) for variable V7 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the practicing year categories do not have any significant impact on their opinion that *frequency of visits by medical representative provides confidence on the authenticity and efficacy of specific medicine brands.*

The F statistic value (1.804) for variable V8 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the practicing year categories do have a significant impact on their opinion that *frequency of visits by medical representative helps in deciding the preference set of medicine brands for specific disease.*

The *F statistic* value (11.009) for variable V9 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the practicing year categories do not have any significant impact on their opinion that *they read thoroughly the reading materials provided by the drug companies.*

The *F statistic* value (4.554) for variable V10 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the practicing year categories do not have any significant impact on their opinion that *they refer medical journals to update with the latest development in their fields.*

The *F statistic* value (10.268) for variable V11 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the practicing year categories do not have any significant impact on their opinion that *they read drug advertisements while reading medical journals.*

The *F statistic* value (7.470) for variable V12 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the practicing year categories do not have any significant impact on their opinion that *while prescribing they compare the costs of different medicine brands which have the same efficacy.*

The *F statistic* value (12.292) for variable V13 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the practicing year categories do not have any significant impact on their opinion that *when they are uncertain about an aspect of drug treatment, their first action, before writing prescription is to check the medical literatures.*

The *F statistic* value (3.339) for variable V14 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the practicing year categories do not have any significant impact on their opinion that *their decision on final choice of medicine brand, is based on the regular visits from local retail pharmacists to request for prescribing certain set of brands.*

The *F statistic* value (3.562) for variable V15 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the practicing year categories do not have any significant impact on their opinion that *they sometimes follow consultation from their known physicians in deciding the drug options for specific disease.*

The *F statistic* value (3.912) for variable V16 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the practicing year categories do not have any significant impact on their opinion that *they mostly prefer prescribing the medicine*

brands that are effectively promoted.

The *F statistic* value (2.013) for variable V17 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the practicing year categories do have a significant impact on their opinion that *they normally prescribe the pre-determined set of medicine brands for specific disease.*

The *F statistic* value (8.731) for variable V18 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the practicing year categories do not have any significant impact on their opinion that *gifts, samples, promotional schemes and frequent visits by medical representative, helps them to decide the final choice of medicine brands for specific disease.*

The *F statistic* value (0.746) for variable V19 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the practicing year categories do have a significant impact on their opinion that *they prescribe medicine brands with which they are most comfortable.*

The *F statistic* value (5.025) for variable V20 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the practicing year categories do not have

any significant impact on their opinion that *the relationships with the drug companies can be build based on the frequency of launch of promotional schemes, gifts, sample of new drugs and visits from medical representative.*

The *F statistic* value (5.857) for variable V21 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the practicing year categories do not have any significant impact on their opinion that *relationship with local pharmacist also plays major role in deciding final set of medicine brands for specific disease.*

The *F statistic* value (12.216) for variable V22 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the practicing year categories do not have any significant impact on their opinion that *they make detail enquiry about the medicine brands from medical magazines.*

The *F statistic* value (4.406) for variable V23 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the practicing year categories do not have any significant impact on their opinion that *they make detail enquiry about the medicine brands from medical representatives brief.*

The *F statistic* value (4.783) for variable V24 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category

means are equal is rejected. This means that the practicing year categories do not have any significant impact on their opinion that *they make detail enquiry about the medicine brands from company's promotional ads and materials.*

The *F statistic* value (1.993) for variable V25 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the practicing year categories do have a significant impact on their opinion that *they make detail enquiry about the medicine brands from other medical practitioners.*

Inference: It can be inferred that the practicing year categories i.e. upto 5 years, 6 to 10 years, 11 to 15 years, 16 to 20 years, 21 to 25 years, more than 26 years, do not have any significant impact on the variables V2 '*To use the drug on few patients and monitor*', V3 '*To seek information from published findings on the efficacy of new drug*', V4 '*Believe on MR briefs on the information about the new drug*', V5 '*When I take a history of my patients, I elicit their personal health beliefs about their illness*', V7 '*Frequency of visits by MR provide me the confidence on the authenticity and efficacy of specific medicine brand*', V9 '*When I receive written promotional material from drug companies, I read it thoroughly*', V10 '*I refer medical journals to update myself with the latest developments in my field*', V11 '*I read drug advertisements while reading medical journals*', V12 '*When I prescribe, I compare the costs of different medicine brands which have the same efficacy*', V13 '*When I am uncertain about an aspect of drug treatment, my first action, before I write prescription is to check the medical literatures*', V14 '*My decision on final choice of brands, is based on the regular visits from local retail pharmacists to request*

me for prescribing certain set of brands', V15 '*I sometimes follow consultation from my known physicians in deciding the drug options for specific disease of my patients*', V16 '*I mostly prefer prescribing the medicine brands that are effectively promoted*', V18 '*Gifts, samples, promotional schemes and frequent visits by MRs, helps me to decide my final choice of medicine brands for specific disease*', V20 '*I feel that relationships with drug companies can be build based on the frequency of launch of promotional schemes, gifts, sample of new drugs and visits from company's MR*', V21 '*Relationship with local retail pharmacist also plays major role in deciding final set of medicine brands for specific disease for my patients*', V22 '*Make detail enquiry about the medicine brands from medical magazines*', V23 '*Make detail enquiry about the medicine brands from MR's brief*', and V24 '*Make detail enquiry about the medicine brands from company promotional ads & materials*'. However, these practicing year categories have significant impact on the variables V1 '*I prescribe fixed set of brands for specific disease*', V6 '*My normal practice is to seek regular information of updates about the promotional schemes and samples from the MRs*', V8 '*Frequency of visits by MR helps me in deciding the preference set of brands of medicine for specific disease*', V17 '*I normally prescribe my patients the pre-determined set of medicine brands for specific disease*', V19 '*I prescribe medicine brands of drug companies with which I am most comfortable*', and V25 '*Make detail enquiry about the medicine brands from other medical practitioners*'. **Thus, the implications from the above findings are that the practicing years do not have any impact over the medical practitioner's perception regarding new drug usage, personal beliefs, reading habits, rational thinking, probing habit about the developments in the medicines, and relationship with drug companies and**

pharmacists. But the practicing years does have an impact over the medicine brand choice, interest towards the promotional schemes, and prescription practice.

5.6 Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Number of Items
.709	***.696***	***26***

The *Cronbach's alpha*[*] or *coefficient alpha*[**] value (0.709) shows fairly strong internal consistency reliability of the 26 scaled items used to construct the doctor's beliefs.

Inference: The scaled items assessed through the Cronbach's alpha are found to be fairly consistent and reliable.

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[*] Malhotra, Naresh K., Marketing Research: An applied orientation, 4e, Pearson education, 2005, pg. 296.

[**] Peterson, Robert A., A Meta-analysis of Cronbach's Coefficient Alpha, Journal of Consumer Research, Vol. 21, September 1994, pg. 381-391.

5.7 Factor Analysis

Eight construct variables and ***twenty seven*** variables i.e. V1 to V27, were used separately for Factor analysis[†]. These two separate variable sets used to test factor analysis, correlation and descriptive analysis. The details of the selected variables are mentioned below:

Variable 1: Process of consultation of medical practitioner.

Variable 2: Source of information for prescribing medicines.

Variable 3: Prescription behavior.

Variable 4: Cautiousness about fixed set of medicine brands.

Variable 5: Relationship with drug companies and medical pharmacists.

Variable 6: Source of inquiries for prescribing medicine brand.

Variable 7: Qualification of the medical practitioner.

Variable 8: Practice years of the medical practitioner.

[†] Malhotra, Naresh K., Marketing Research: An applied orientation, 4e, Pearson education, 2005, pg. 588-598.

Twenty Seven construct variables

Coding	Description
V1	How do you practice
V2	Methods adopt while suggesting medicines for a specific disease to your patients
V3: The process of consultation	I prescribe fixed set of brands for specific disease
V4: *When a new drug become available, what I do most commonly is*	To use the drug on few patients and monitor
V5	To seek information from published findings on the efficacy of new drug
V6	Believe on medical representative briefs on the information about the new drug
V7	When I take a history of my patients, I elicit their personal health beliefs about their illness
V8: Sources of information for prescribing medicines	My normal practice is to seek regular information of updates about the promotional schemes and samples from the medical representatives
V9	Frequency of visits by medical representative provide me the confidence on the authenticity and efficacy of specific medicine brand
V10	Frequency of visits by medical representative helps me in deciding the preference set of brands of medicine for specific disease
V11	When I receive written promotional material from drug companies, I read it thoroughly
V12	I refer medical journals to update myself with the latest developments in my field
V13	I read drug advertisements while reading medical journals
V14: Prescription behaviour	When I prescribe, I compare the costs of different medicine brands which have the same efficacy
V15	When I am uncertain about an aspect of drug treatment, my first action, before I write prescription is to check the medical literatures
V16	My decision on final choice of brands, is based on the regular visits from local retail pharmacists to request me for prescribing certain set of brands
V17	I sometimes follow consultation from my known physicians in deciding the drug options for specific disease of my patients
V18	I mostly prefer prescribing the medicine brands that are effectively promoted

V19: Cautiousness about fixed set of medicinal brands	I normally prescribe my patients the pre-determined set of medicine brands for specific disease
V20	Gifts, samples, promotional schemes and frequent visits by medical representatives, helps me to decide my final choice of medicine brands for specific disease
V21: Relationship with drug companies and retail pharmacists	I prescribe medicine brands of drug companies with which I am most comfortable
V22	I feel that relationships with drug companies can be build based on the frequency of launch of promotional schemes, gifts, sample of new drugs and visits from company's medical representative
V23	Relationship with local retail pharmacist also plays major role in deciding final set of medicine brands for specific disease for my patients
V24	Make detail enquiry about the medicine brands from medical magazines
V25	Make detail enquiry about the medicine brands from medical representative's brief
V26	Make detail enquiry about the medicine brands from company promotional ads & materials
V27	Make detail enquiry about the medicine brands from other medical practitioners

5.7.1 Factor Analysis for *eight* construct variables

The *process of consultation of medical practitioners* is relatively more influenced by *number of practice years* as high correlation exists between them. *Sources of information for prescribing a medicinal brand* is relatively more influenced by the *prescription behaviour of the medical practitioner. Prescription behaviour* and the *cautiousness about using fixed set of medicinal brands* are relatively more influenced with the *kind of relationship exist between medical practitioners, drug companies and retail pharmacists.*

Communalities for all the six variables were one and thus were inserted in the diagonals of the correlation matrix for further analysis.

Initial Eigenvalues of the three factors explaining the total variance are more than one; therefore all the three factors are included in the final analysis. ***Factor 1*** account for a variance of 2.229, which is 27.861% of the total variance explained by the three factors. ***Factor 2*** account for a variance of 1.546 and explaining 19.329% of total variance. Similarly, ***factor 3*** accounts for a variance of 1.292, which is 16.155% of the total variance. Thus, three factors combined together explain 63.345% of total variance, which is relatively significant.

Rotated component matrix shows that ***Factor 1*** has relatively high coefficients for variables 'sources of information for prescription medicine' (.585), 'prescription behaviour' (.721), 'cautiousness about fixed set of medicine brands' (.710), 'relationship with drug companies and retail pharmacists' (.822). Therefore this factor is labeled as '**prescription traits**'. ***Factor 2*** is relatively related high with variables 'the process of

consultation' (.796), and 'practice year' (.748). Thus, this factor is labeled as '**consultation approach**'. ***Factor 3*** has relatively high coefficients for variables 'sources of inquiries' (.835) and 'qualification' (.666). Thus, this factor is labeled as '**education and reading habits**'. Now, these three factors will be further verified, by including *twenty seven construct* variables, which are there in the belief constructs in the questionnaire, and factor analysis, will be again executed to find the final factors.

Correlation Matrix

		The Process of Consultation	Source of Information for prescribing medicine	Prescription Behaviour	Cautiousness about fixed set of Medical Brands	Relationship with DC & RP	Source of Inquiries	Qualification	Practice year
Correlation	The Process of Consultation	1.000	.218	.223	.103	.037	-.021	-.119	.352
	Source of Information for prescribing medicine	.218	1.000	.460	.233	.370	-.140	-.039	.265
	Prescription Behaviour	.223	.460	1.000	.387	.440	-.248	.002	.354
	Cautiousness about fixed set of Medical Brands	.103	.233	.387	1.000	.461	.006	.153	.149
	Relationship with DC & RP	.037	.370	.440	.461	1.000	-.171	.153	.138
	Source of Inquiries	-.021	-.140	-.248	.006	-.171	1.000	.229	-.078
	Qualification	-.119	-.039	.002	.153	.153	.229	1.000	-.210
	Practice year	.352	.265	.354	.149	.138	-.078	-.210	1.000
Sig. (1-tailed)	The Process of Consultation		.000	.000	.052	.279	.373	.031	.000
	Source of Information for prescribing medicine	.000		.000	.000	.000	.013	.272	.000
	Prescription Behaviour	.000	.000		.000	.000	.000	.490	.000
	Cautiousness about fixed set of Medical Brands	.052	.000	.000		.000	.465	.008	.009
	Relationship with DC & RP	.279	.000	.000	.000		.003	.008	.014
	Source of Inquiries	.373	.013	.000	.465	.003		.000	.110
	Qualification	.031	.272	.490	.008	.008	.000		.000
	Practice year	.000	.000	.000	.009	.014	.110	.000	

Communalities

	Initial	Extraction
The Process of Consultation	1.000	.643
Source of Information for prescribing medicine	1.000	.477
Prescription Behaviour	1.000	.652
Cautiousness about fixed set of Medical Brands	1.000	.570
Relationship with DC & RP	1.000	.682
Source of Inquiries	1.000	.777
Qualification	1.000	.648
Practice year	1.000	.618

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.507	31.334	31.334	2.507	31.334	31.334	2.229	27.861	27.861
2	1.460	18.247	49.582	1.460	18.247	49.582	1.546	19.329	47.190
3	1.101	13.763	63.345	1.101	13.763	63.345	1.292	16.155	63.345
4	.717	8.958	72.303						
5	.681	8.508	80.811						
6	.612	7.648	88.459						
7	.492	6.151	94.610						
8	.431	5.390	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix(a)

	Component		
	1	2	3
The Process of Consultation	.061	.796	.066
Source of Information for prescribing medicine	.585	.330	-.163
Prescription Behaviour	.721	.304	-.200
Cautiousness about fixed set of Medical Brands	.710	.067	.248
Relationship with DC & RP	.822	-.079	-.028
Source of Inquiries	-.248	.133	.835
Qualification	.287	-.349	.666
Practice year	.202	.748	-.134

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a

Rotation converged in 4 iterations.

5.7.2 Factor Analysis for twenty seven construct variables

The Factor Analysis was again run on *twenty seven construct* variables, which are mentioned above the analysis, to know the overall factors that emerge and contributes to the doctor's behaviour.

It can be seen from the correlation matrix, that variables V4 '*to use the drug on few patients and monitor*' and V6 '*believe on medical representative briefs on the information about the new drug*' have relatively high correlation (.525). The variables V5 '*seek information from published findings on the efficacy of new drug*' and V7 '*when I take a history of my patients, I elicit their personal health beliefs about their illness*' are showing high correlation (.430). The variables V8 '*seek regular information of updates about the promotional schemes and samples from the medical representatives*' and V10 '*frequency of visits by medical representative helps me in deciding the preference set of medicine brands for specific disease*' are showing slight correlation (.388). Similarly, variables V9 '*frequency of visits by medical representative provides the confidence on the authenticity and efficacy of specific medicine brand*' and V12 '*refer medical journals to update with the latest developments*' are also showing slight correlation (.392). Variables V14 '*compare the costs of different medicine brands which have the same efficacy*' and V17 '*follow consultation from known physicians in deciding the drug options for specific disease*' are having relatively high correlation (.471). Variables V16 '*final choice of brand is based on regular visit from local retail pharmacist to request for prescribing certain set of medicine brand*' and V18 '*prescribing the medicine brands that are effectively promoted*' are showing relatively high correlation (.439). Variables V22

'*relationships with drug companies can be build based on the frequency of launch of promotional schemes, gifts, samples of new drugs and visits of medical representative*' and V23 '*relationship with local retail pharmacist also plays major role in deciding final set of medicine brands for specific disease*' are showing relatively strong correlation (.501).

Communalities for all the twenty seven variables were one and thus were inserted in the diagonals of the correlation matrix for further analysis.

Initial Eigenvalues of the ten factors explaining the total variance are more than one; therefore all the ten factors are included in the final analysis. ***Factor 1*** account for a variance of 2.252, which is 8.342% of the total variance explained by the ten factors. ***Factor 2*** accounts for a variance of 1.964 and explaining 7.273% of total variance. ***Factor 3*** accounts for a variance of 1.961, which is explaining 7.262% of the total variance. ***Factor 4*** accounts for a variance of 1.960, which is 7.259% of the total variance. ***Factor 5*** accounts for a variance of 1.954, which is explaining 7.236% of the total variance. ***Factor 6*** accounts for a variance of 1.830, which is 6.776% of the total variance. ***Factor 7*** accounts for a variance of 1.752, which is explaining 6.488% of the total variance. ***Factor 8*** accounts for a variance of 1.717, which is 6.361% of the total variance. ***Factor 9*** accounts for a variance of 1.643, which is explaining 6.085% of the total variance. ***Factor 10*** accounts for a variance of 1.628, which is explaining 6.030% of the total variance. Thus, ten factors combined together explain *69.111%* of total variance, which is relatively significant.

Rotated component matrix show that factor loadings for ***Factor 1*** has relatively high coefficients for variables V13 '*I read drug advertisements while reading medical journals*' (.570), and V15 '*when I am uncertain about an aspect of drug treatment, my first action, before I write prescription is to check the medical literatures*' (.581). Therefore this factor is labeled as '**reading habits**'. ***Factor 2*** is relatively related high with variables V5 '*to seek information from published findings on the efficacy of new drug*' (.749), and V7 '*when I take a history of my patients, I elicit their personal health beliefs about their illness*' (.765). Thus, this factor is labeled as '**rational prescription thinking**'. ***Factor 3*** has relatively high coefficients for variables V9 '*frequency of visits by medical representative provide me the confidence on the authenticity and efficacy of specific medicine brand*' (.614), V11 '*when I receive written promotional material from drug companies, I read it thoroughly*' (.676) and V12 '*I refer medical journals to update myself with the latest developments in my field*' (.757). Thus, this factor is labeled as '**probing habits**'. ***Factor 4*** has relatively high coefficients for variables V4 '*to use the drug on few patients and monitor*' (.765), V6 '*believe on medical representative briefs on the information about the new drug*' (.711) and V27 '*make detail enquiry about the medicine brands from other medical practitioners*' (.732). Thus, this factor is labeled as '**new drug inquiry approach**'. ***Factor 5*** has relatively high coefficients for variables V8 '*my normal practice is to seek regular information of updates about the promotional schemes and samples from the MRs*'(.666), V10 '*frequency of visits by medical representative helps me in deciding the preference set of brands of medicine for specific disease*' (.847), V23 '*relationship with local retail pharmacist also plays major role in deciding final set of medicine brands for specific disease for my patients*' (.443) and V24 '*make detail*

enquiry about the medicine brands from medical magazines' (.154). Thus, this factor is labeled as '**relationship with medical representatives and pharmacists**'. ***Factor 6*** has relatively high coefficients for variables V3 '*I prescribe fixed set of brands for specific disease*' (.797) and V22 '*I feel that relationships with drug companies can be build based on the frequency of launch of promotional schemes, gifts, sample of new drugs and visits from company's medical representative*' (.625). Thus, this factor is labeled as '**loyalty criteria**'. ***Factor 7*** has relatively high coefficients for variables V14 '*when I prescribe, I compare the costs of different medicine brands which have the same efficacy*' (.467), V17 '*I sometimes follow consultation from my known physicians in deciding the drug options for specific disease of my patients*' (.528) and V20 '*gifts, samples, promotional schemes and frequent visits by medical representative, helps me to decide my final choice of medicine brands for specific disease*' (.769). Thus, this factor is labeled as '**brand decision criteria**'. *Factor 8* has relatively high coefficients for variables V2 '*methods adopt while suggesting medicines for a specific disease to your patients*' (.318). Thus, this factor is labeled as '**prescription method**'. *Factor 9* has relatively high coefficients for variables V1 '*how do you practice*' (.091), V19 '*I normally prescribe my patients the pre-determined set of medicine brands for specific disease*' (.690), V21 '*I prescribe medicine brands of drug companies with which I am most comfortable*' (.694) and V25 '*make detail enquiry about the medicine brands from medical representative's brief*' (.472). Thus, this factor is labeled as '**brand comfort**'. *Factor 10* has relatively high coefficients for variables V16 '*my decision on final choice of brands, is based on the regular visits from local retail pharmacists to request me for prescribing certain set of brands*' (.604), V18 '*I mostly prefer prescribing the medicine brands that are effectively*

promoted' (.638) and V26 '*make detail enquiry about the medicine brands from company promotional ads & materials*' (.552). Thus, this factor is labeled as '**brand detailing**'.

Inference:

Out of the original twenty seven constructs, ten factors were extracted which were named as:

1. Reading habits.
2. Rational prescription thinking.
3. Probing habits.
4. New drug inquiry approach.
5. Relationship with medical representatives and pharmacists.
6. Loyalty criteria.
7. Brand decision criteria.
8. Prescription method.
9. Brand comfort.
10. Brand detailing.

The medical practitioners normally read medical literatures besides looking at the drug advertisements to update with the latest drug developments. They are generally rational and cautious while prescribing a medicine brand for a specific disease. Before prescription, they normally prefer listening to the patient's personal belief about their illness besides referring the published finding regarding efficacy of the medicine brand. They usually refer multiple sources of information to check the efficacy of the medicine

brand. Sometimes, they refer to the other medical practitioners to consult about the medicine brand for a specific disease. They believe that relationship with the medical representatives and pharmacists not only helps them in deciding a preference set of medicine brands but also assure them about the efficacy of drugs. They sometimes compare the cost of medicine brands with same efficacy while prescribing for a specific disease. They prefer medicine brand of the drug companies, which offers regular gifts, samples, and promotional schemes. The frequent visits by medical representatives and pharmacists help prescribers to fix pre-determined set of medicine brands for a specific disease.

Correlation Matrix

		V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14
Correlatio	V1	1	-0.07	-0.1	0.614	-0.2	-0.21	-0.03	-0.15	0.479	-0.04	-0.42	0.506	-0.1	0.086
	V2	-0.07	1	0.248	-0.04	-0.3	0.162	0.305	-0.37	0.011	-0.22	-0.18	-0.05	0.374	-0.41
	V3	-0.1	0.248	1	-0.02	-0.05	0.142	0.168	-0.33	-0.01	-0.05	-0.12	0.091	0.356	-0.19
	V4	0.614	-0.04	-0.02	1	-0.2	-0.27	0.014	-0.16	0.485	-0.1	-0.37	0.461	-0.11	0.029
	V5	-0.2	-0.3	-0.05	-0.2	1	0.182	-0.48	0.619	-0.16	0.579	0.675	-0.19	-0.34	0.546
	V6	-0.21	0.162	0.142	-0.27	0.182	1	-0.07	0.035	-0.15	0.165	0.183	-0.17	0.051	0.01
	V7	-0.03	0.305	0.168	0.014	-0.48	-0.07	1	-0.54	-0.06	-0.53	-0.34	-0.05	0.352	-0.5
	V8	-0.15	-0.37	-0.33	-0.16	0.619	0.035	-0.54	1	-0.15	0.589	0.633	-0.24	-0.4	0.599
	V9	0.479	0.011	-0.01	0.485	-0.16	-0.15	-0.06	-0.15	1	0.074	-0.19	0.608	0.039	0.063
	V10	-0.04	-0.22	-0.05	-0.1	0.579	0.165	-0.53	0.589	0.074	1	0.553	-0.03	-0.21	0.743
	V11	-0.42	-0.18	-0.12	-0.37	**0.675**	0.183	-0.34	0.633	-0.19	0.553	1	-0.22	-0.29	0.458
	V12	0.506	-0.05	0.091	0.461	-0.19	-0.17	-0.05	-0.24	**0.608**	-0.03	-0.22	1	-0.07	0.128
	V13	-0.1	0.374	0.356	-0.11	-0.34	0.051	0.352	-0.4	0.039	-0.21	-0.29	-0.07	1	-0.4
	V14	0.086	-0.41	-0.19	0.029	0.546	0.01	-0.5	0.599	0.063	**0.743**	0.458	0.128	-0.4	1
	V15	0.174	-0.35	-0.1	0.168	0.625	0.041	-0.53	0.619	0.188	0.692	0.439	0.166	-0.39	**0.742**
	V16	0.384	0.014	0.129	0.45	-0.18	-0.1	0.076	-0.32	0.45	-0.14	-0.21	**0.517**	-0.05	-0.11
	V17	**0.647**	-0.05	-0.07	0.638	-0.28	-0.16	-0.14	-0.19	0.525	0.106	-0.35	0.568	-0.11	0.158
	V18	0.231	0.237	0.322	0.186	-0.3	-0.08	0.203	-0.25	0.237	0.001	-0.27	0.236	0.232	-0.07
	V19	0.17	-0.17	0.005	0.214	0.252	0.136	-0.3	0.223	0.17	0.421	0.101	0.247	-0.31	0.606
	V20	-0.03	-0.04	-0.04	-0.02	0.032	0.035	-0.19	0.099	0.111	0.029	0.109	0.045	-0.13	0.034
	V21	-0.01	0.006	0.002	-0.07	0.068	0.054	-0.02	0.1	-0.06	0.134	0.117	-0.02	-0.2	0.086
	V22	0.113	0.018	0.088	0.148	-0.13	-0.17	-0.05	-0.05	0.144	-0.11	0.027	0.061	0.061	-0.08
	V23	0.157	0.172	-0.04	0.11	-0.24	0.028	0.114	-0.21	0.096	0.021	-0.31	0.185	0.01	0.022
	V24	0.354	-0.01	-0.04	0.258	-0.12	-0.01	-0.07	-0.02	0.381	0.171	-0.09	0.249	-0.06	0.201

Matrix continued...

		V15	V16	V17	V18	V19	V20	V21	V22	V23	V24
Correlatio	V1	0.174	0.384	0.647	0.231	0.17	-0.03	-0.01	0.113	0.157	0.354
	V2	-0.35	0.014	-0.05	0.237	-0.17	-0.04	0.006	0.018	0.172	-0.01
	V3	-0.1	0.129	-0.07	0.322	0.005	-0.04	0.002	0.088	-0.04	-0.04
	V4	0.168	0.45	0.638	0.186	0.214	-0.02	-0.07	0.148	0.11	0.258
	V5	0.625	-0.18	-0.28	-0.3	0.252	0.032	0.068	-0.13	-0.24	-0.12
	V6	0.041	-0.1	-0.16	-0.08	0.136	0.035	0.054	-0.17	0.028	-0.01
	V7	-0.53	0.076	-0.14	0.203	-0.3	-0.19	-0.02	-0.05	0.114	-0.07
	V8	0.619	-0.32	-0.19	-0.25	0.223	0.099	0.1	-0.05	-0.21	-0.02
	V9	0.188	0.45	0.525	0.237	0.17	0.111	-0.06	0.144	0.096	0.381
	V10	0.692	-0.14	0.106	0.001	0.421	0.029	0.134	-0.11	0.021	0.171
	V11	0.439	-0.21	-0.35	-0.27	0.101	0.109	0.117	0.027	-0.31	-0.09
	V12	0.166	0.517	0.568	0.236	0.247	0.045	-0.02	0.061	0.185	0.249
	V13	-0.39	-0.05	-0.11	0.232	-0.31	-0.13	-0.2	0.061	0.01	-0.06
	V14	0.742	-0.11	0.158	-0.07	0.606	0.034	0.086	-0.08	0.022	0.201
	V15	1	0.07	0.211	-0.11	0.554	0.029	0.074	0.008	-0.05	0.194

	V16	0.07	1	0.409	0.105	0.121	-0.01	0.123	0.147	0.225	0.337
	V17	0.211	0.409	1	0.13	0.358	-0.07	-0.05	0.129	0.241	0.487
	V18	-0.11	0.105	0.13	1	-0.09	-0.13	0.002	-0.01	0.168	0.13
	V19	0.554	0.121	0.358	-0.09	1	-0.09	0.057	-0.1	0.266	0.235
	V20	0.029	-0.01	-0.07	-0.13	-0.09	1	0.055	0.034	-0.29	-0.12
	V21	0.074	0.123	-0.05	0.002	0.057	0.055	1	-0.1	-0.02	0.101
	V22	0.008	0.147	0.129	-0.01	-0.1	0.034	-0.1	1	-0.13	0.151
	V23	-0.05	0.225	0.241	0.168	0.266	-0.29	-0.02	-0.13	1	0.126
	V24	0.194	0.337	0.487	0.13	0.235	-0.12	0.101	0.151	0.126	1

Matrix continued...

		V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14
Sig(1-tailed)	V1		0.126	0.063	0	0.001	0	0.31	0.011	0	0.26	0	0	0.063	0.087
	V2	0.126		0	0.29	0	0.005	0	0	0.433	0	0.002	0.235	0	0
	V3	0.063	0		0.353	0.217	0.012	0.004	0	0.437	0.227	0.033	0.075	0	0.001
	V4	0	0.29	0.353		0.001	0	0.416	0.005	0	0.061	0	0	0.036	0.325
	V5	0.001	0	0.217	0.001		0.002	0	0	0.006	0	0	0.001	0	0
	V6	0	0.005	0.012	0	0.002		0.124	0.29	0.008	0.004	0.002	0.003	0.213	0.437
	V7	0.31	0	0.004	0.416	0	0.124		0	0.155	0	0	0.219	0	0
	V8	0.011	0	0	0.005	0	0.29	0		0.01	0	0	0	0	0
	V9	0	0.433	0.437	0	0.006	0.008	0.155	0.01		0.123	0.002	0	0.269	0.159
	V10	0.26	0	0.227	0.061	0	0.004	0	0	0.123		0	0.33	0.001	0
	V11	0	0.002	0.033	0	0	0.002	0	0	0.002	0		0	0	0
	V12	0	0.235	0.075	0	0.001	0.003	0.219	0	0	0.33	0		0.138	0.022
	V13	0.063	0	0	0.036	0	0.213	0	0	0.269	0.001	0	0.138		0
	V14	0.087	0	0.001	0.325	0	0.437	0	0	0.159	0	0	0.022	0	
	V15	0.003	0	0.051	0.004	0	0.26	0	0	0.001	0	0	0.004	0	0
	V16	0	0.412	0.021	0	0.002	0.063	0.115	0	0	0.014	0	0	0.232	0.047
	V17	0	0.225	0.133	0	0	0.005	0.012	0.001	0	0.047	0	0	0.048	0.006
	V18	0	0	0	0.002	0	0.102	0.001	0	0	0.491	0	0	0	0.13
	V19	0.004	0.004	0.471	0	0	0.016	0	0	0.004	0	0.056	0	0	0
	V20	0.315	0.253	0.242	0.371	0.308	0.29	0.001	0.06	0.04	0.322	0.043	0.239	0.017	0.294
	V21	0.436	0.465	0.485	0.122	0.142	0.199	0.372	0.057	0.17	0.017	0.032	0.391	0.001	0.087
	V22	0.037	0.388	0.082	0.01	0.023	0.004	0.215	0.213	0.011	0.049	0.336	0.167	0.167	0.092
	V23	0.006	0.003	0.242	0.041	0	0.329	0.036	0	0.066	0.373	0	0.002	0.435	0.365
	V24	0	0.423	0.27	0	0.03	0.456	0.15	0.38	0	0.003	0.075	0	0.184	0.001

		V15	V16	V17	V18	V19	V20	V21	V22	V23	V24
Sig(1-tailed)	V1	0.003	0	0	0	0.004	0.315	0.436	0.037	0.006	0
	V2	0	0.412	0.225	0	0.004	0.253	0.465	0.388	0.003	0.423
	V3	0.051	0.021	0.133	0	0.471	0.242	0.485	0.082	0.242	0.27
	V4	0.004	0	0	0.002	0	0.371	0.122	0.01	0.041	0
	V5	0	0.002	0	0	0	0.308	0.142	0.023	0	0.03
	V6	0.26	0.063	0.005	0.102	0.016	0.29	0.199	0.004	0.329	0.456
	V7	0	0.115	0.012	0.001	0	0.001	0.372	0.215	0.036	0.15
	V8	0	0	0.001	0	0	0.06	0.057	0.213	0	0.38
	V9	0.001	0	0	0	0.004	0.04	0.17	0.011	0.066	0
	V10	0	0.014	0.047	0.491	0	0.322	0.017	0.049	0.373	0.003
	V11	0	0	0	0	0.056	0.043	0.032	0.336	0	0.075
	V12	0.004	0	0	0	0	0.239	0.391	0.167	0.002	0
	V13	0	0.232	0.048	0	0	0.017	0.001	0.167	0.435	0.184
	V14	0	0.047	0.006	0.13	0	0.294	0.087	0.092	0.365	0.001
	V15		0.135	0	0.047	0	0.322	0.12	0.448	0.201	0.001
	V16	0.135		0	0.049	0.028	0.41	0.026	0.01	0	0
	V17	0	0		0.02	0	0.132	0.199	0.021	0	0
	V18	0.047	0.049	0.02		0.075	0.022	0.487	0.458	0.004	0.02
	V19	0	0.028	0	0.075		0.069	0.187	0.063	0	0
	V20	0.322	0.41	0.132	0.022	0.069		0.192	0.294	0	0.027
	V21	0.12	0.026	0.199	0.487	0.187	0.192		0.059	0.37	0.056
	V22	0.448	0.01	0.021	0.458	0.063	0.294	0.059		0.022	0.008
	V23	0.201	0	0	0.004	0	0	0.37	0.022		0.023
	V24	0.001	0	0	0.02	0	0.027	0.056	0.008	0.023	

Communalities

	Initial	Extraction
V1	1.000	.695
V2	1.000	.564
V3	1.000	.692
V4	1.000	.730
V5	1.000	.658
V6	1.000	.712
V7	1.000	.638
V8	1.000	.669
V9	1.000	.801
V10	1.000	.844
V11	1.000	.722
V12	1.000	.725
V13	1.000	.677
V14	1.000	.697
V15	1.000	.639
V16	1.000	.639
V17	1.000	.616
V18	1.000	.652
V19	1.000	.620
V20	1.000	.777
V21	1.000	.652
V22	1.000	.794
V23	1.000	.684
V24	1.000	.814
V25	1.000	.706
V26	1.000	.499
V27	1.000	.744

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.478	16.584	16.584	4.478	16.584	16.584	2.252	8.342	8.342
2	2.543	9.417	26.001	2.543	9.417	26.001	1.964	7.273	15.614
3	1.968	7.288	33.289	1.968	7.288	33.289	1.961	7.262	22.876
4	1.819	6.735	40.024	1.819	6.735	40.024	1.960	7.259	30.135
5	1.654	6.126	46.150	1.654	6.126	46.150	1.954	7.236	37.372
6	1.488	5.510	51.661	1.488	5.510	51.661	1.830	6.776	44.148
7	1.264	4.681	56.342	1.264	4.681	56.342	1.752	6.488	50.636
8	1.221	4.522	60.864	1.221	4.522	60.864	1.717	6.361	56.996
9	1.190	4.408	65.272	1.190	4.408	65.272	1.643	6.085	63.081
10	1.036	3.839	69.111	1.036	3.839	69.111	1.628	6.030	69.111
11	.933	3.456	72.566						
12	.801	2.967	75.533						
13	.788	2.918	78.451						
14	.695	2.575	81.027						
15	.629	2.331	83.358						
16	.617	2.284	85.642						
17	.562	2.081	87.723						
18	.532	1.972	89.695						
19	.461	1.708	91.403						
20	.448	1.659	93.062						
21	.421	1.560	94.622						
22	.316	1.169	95.791						
23	.279	1.032	96.822						
24	.255	.945	97.767						
25	.233	.862	98.629						
26	.198	.733	99.362						
27	.172	.638	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix(a)

	Component									
	1	2	3	4	5	6	7	8	9	10
V1	.045	-.025	.074	-.048	.004	.036	-.071	-.818	.091	-.027
V2	.201	-.024	-.467	-.278	-.153	-.188	-.164	.318	-.177	-.102
V3	-.125	.006	.011	-.118	-.050	.797	-.024	-.071	.128	.055
V4	.015	.273	.058	.765	.057	-.167	-.003	.130	-.017	-.133
V5	.096	.749	.087	.060	.003	.001	.180	.196	-.059	-.038
V6	.056	.203	.078	.711	.098	-.131	-.309	.094	.105	.117
V7	.089	.765	-.025	.106	.061	.027	.008	-.102	.131	.041
V8	.007	.010	.109	-.106	.666	.362	.081	.236	.084	-.030
V9	-.118	.156	.614	.027	.356	-.099	.068	.445	.122	.174
V10	.000	.148	-.039	.079	.847	-.146	.069	-.191	.091	.161
V11	.273	-.111	.676	-.168	.104	-.141	.271	-.098	-.101	-.161
V12	.219	.125	.757	.130	-.130	.050	-.148	-.035	.163	.050
V13	.570	-.063	.180	.120	.357	-.241	-.074	-.129	.305	.028
V14	.404	.353	.136	-.118	.125	-.126	.467	-.226	-.181	.206
V15	.581	.327	.290	-.186	.056	-.004	-.078	-.118	.189	.128
V16	.019	.031	.082	.195	.230	.020	.393	.093	.109	.604
V17	.431	.186	.060	.047	.204	-.033	.528	-.225	.120	.055
V18	.084	.295	.076	-.039	.106	.165	.082	-.175	.260	.638
V19	.060	.042	.108	.134	.095	.204	.225	-.080	.690	-.045
V20	-.065	.083	.031	-.107	.012	.132	.769	.310	.171	.139
V21	.117	.061	.102	-.065	.126	.054	-.065	-.065	.694	.334
V22	.387	.056	-.249	-.041	.200	.625	.295	.078	.141	.182
V23	.339	-.161	.194	-.008	.443	.387	.151	.368	.019	.029
V24	-.854	-.088	-.024	-.134	.154	-.088	-.107	-.107	.022	.056
V25	.019	.021	-.102	.038	-.140	-.455	.135	.219	.472	-.422
V26	-.020	-.345	-.109	-.040	-.106	.040	.007	.214	-.058	.552
V27	.042	-.315	-.046	.732	-.165	.078	.159	-.201	.012	.078

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a

Rotation converged in 11 iterations.

5.8 Most preferred factors for prescribing medicine brands

Medical practitioners were asked to provide their preferences for the factors that they consider while prescribing a medicine brand across the selected cities (Appendix I, Table 21). The major factors in terms of priority mentioned were:

1. Standard company/ reputation of the drug manufacturer
2. Quality/ efficacy
3. Cost of the drug
4. Economical brand

SECTION II PATIENTS RESPONSE

I. Patients response: Descriptive analysis

5.9 Relationship with the medical practitioner

5.9.1 Priority of medical practitioner

Patients across all the selected cities responded that they visit physician during illness and do not rely on home treatment even for seasonal illness (Appendix II, Table 22). Thus, they always give priority to doctor's advice over home treatment.

5.9.2 Purpose of visit to medical practitioner

Patients were asked to respond regarding reasons to visit the doctor. Across all the selected cities, patients ranked 1 to the reason that they visit due to illness during seasonal changes like fever, cold etc. (wt. avg. 5.124), ranked 2 to reason that he/she is their family doctor (wt. avg. 2.322), ranked 3 to the reason that they visit due to minor illness like scratches, wounds etc. (wt. avg. 2.027), ranked 4 to the reason that they visit due to acute illness (wt. avg. 1.035). (Appendix II, Table 23)

Causes of visit	Weighted Average
Illness during seasonal changes (fever, cold etc)	***5.124***
Acute illness	***1.035***
Minor illness (scratches, wounds etc)	***2.027***
Formal visit(s) while passing by the area	***0.06***
Visit because he/ she is our family doctor	***2.322***
Others*	***0.367***

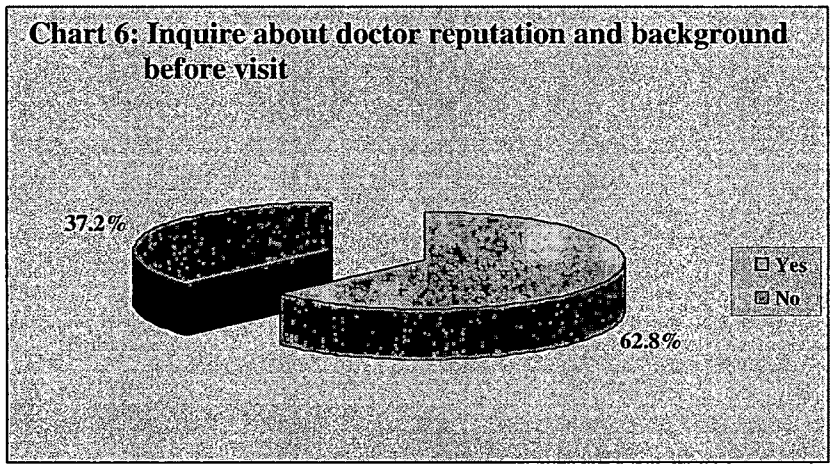
** Others include pain in hand, Malaria, Diabetes, BP and Gynecological problem*

Inference: Patients are visiting the doctor relatively more due to the seasonal illness than the other reasons.

5.10 Inquiry about medical practitioner

5.10.1 Reputation and Background of medical practitioner

Across all the selected cities, 62.8% patients favoured the statement that they inquire about the reputation and background while visiting a doctor. Whereas, 37.2% patients have responded that they do not inquire about doctor before visiting. (Appendix II, Table 24)



5.10.2 Information sources to inquire about the medical practitioner

Patients were asked to respond regarding information source they use to inquire about the doctor. Across all the selected cities, patients ranked 1 to the statement that they visit because he/she is their family doctor (wt. avg. 3.865), ranked 2 to the statement that they ask their neighbors/ friends, if visiting the doctor for the first time (wt. avg.

2.370) and ranked 3 to the statement that they ask their colleagues/ seniors/ sub-ordinates in the office (wt. avg. 1.044). (Appendix II, Table 25)

Information sources	Weighted Average
Ask neighbors/ friends, if visiting for the first time	***2.370***
Ask our colleagues/ seniors/ sub-ordinates in office	***1.044***
We have our family doctor	***3.865***
Others	***0.165***

Inference: Patients relatively prefer to visit and consult their own family doctor for any kind of treatment.

5.10.3 Kind of information about the doctors

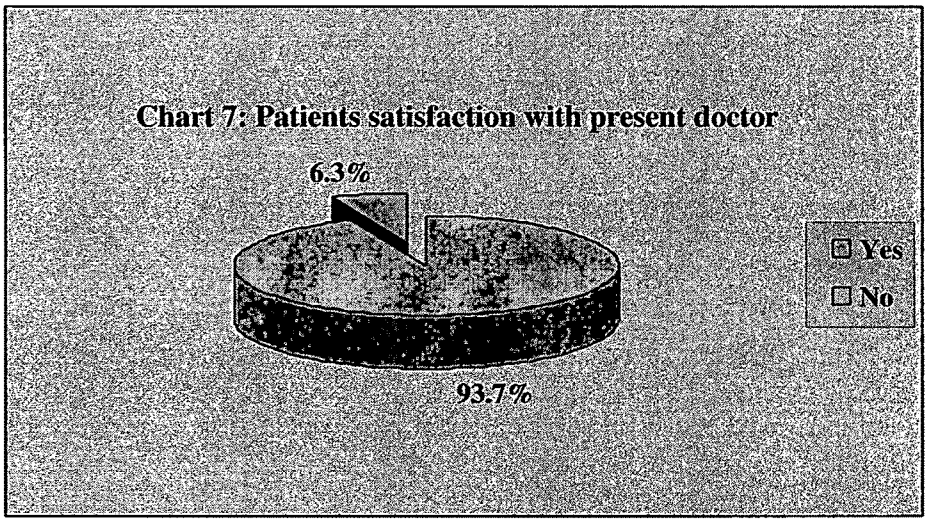
Patients across all the selected cities were asked to rank their preferences over the type of information seek about the doctor, while visiting a doctor for the first time. Patients ranked 1 to the doctor's experience (wt. avg. 4.679), ranked 2 to the doctor's effectiveness in treatment (wt. avg. 4.605), ranked 3 to the efficacy of medicines that the doctor prescribes (wt. avg. 4.070), ranked 4 to the doctor's reputation (wt. avg. 2.970), and ranked 5 to the doctor's past history (wt. avg. 2.752). (Appendix II, Table 26)

Kind of information seek	Weighted Average
His/ her reputation	***2.970***
His/ her past history	***2.752***
His/ her experience	***4.679***
His/ her effectiveness in treatment	***4.605***
Efficacy of medicines that he/ she prescribes	***4.070***
Others	***0.131***

Inference: When visiting a doctor for the first time, patients seek information relatively more about their experience in prescription practice.

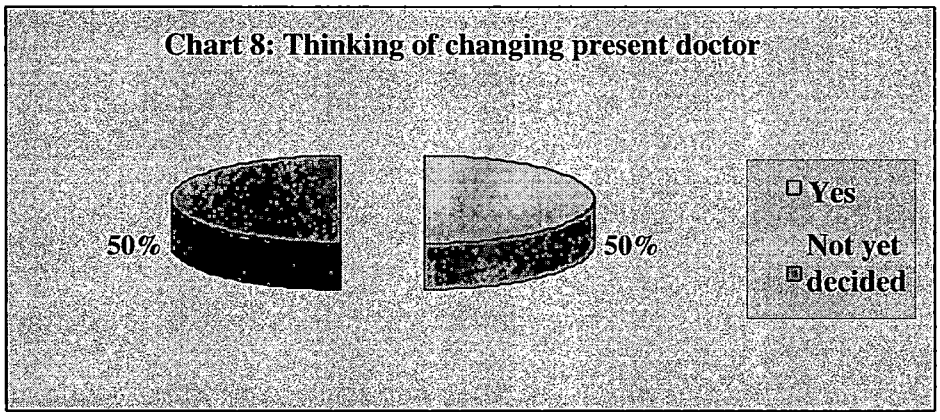
5.10.4 Satisfaction with the doctor

Patients were asked whether they are satisfied with their present doctor. Across all the selected cities, 93.7% patients responded that they are satisfied whereas 6.3% of patients were dissatisfied with their present doctor. (Appendix II, Table 27)



5.10.5 Changing the doctor for future treatments

Patients were asked that if they are dissatisfied with the present doctor, are they thinking of changing for future treatments. 50% of patients responded that they are thinking of changing their present doctor, whereas other 50% of patients were not decided for changing their present doctor. (Appendix II, Table 28)



5.10.6 Reasons for dissatisfaction with the present doctor

Patients were asked to respond regarding the reasons for their dissatisfaction with the present doctor. Across all the selected cities, patients ranked 1 to the reason that 'prescribed medicine are not effective' (wt. avg. 3.587), ranked 2 to other reasons (wt. avg. 3.353), ranked 3 to the reason that prescription fees is very high, ranked 4 to the reasons that doctor is not guiding properly and also is away from their place, and ranked 5 to the reason that doctor do not devote appropriate time to listen their brief. (Appendix II, Table 29)

Reasons for dissatisfaction	Weighted Average
Prescribed medicines are not effective	*3.587*
Do not properly devote time to listen to our brief	*1.169*
Do not guide properly	*1.232*
Prescription fees is very high	*1.704*
Away from my place	*1.232*
Other	*3.353*

Inference: Patients are dissatisfied more due to the ineffectiveness of the prescribed medicines than with the other reasons.

5.11 Attitudinal Information: Prescription behaviour of doctor

5.11.1 Perception of patients about doctor prescription

Patients were asked whether doctor prescribes the medicines for similar number of days. Across the selected cities, patients favoured the statement and were marginally strong in their opinion. On the statement that whether doctor asks them to visit again after the first prescription, patients across all the selected cities relatively favoured and were strong in their opinion. Patients were asked whether the doctor prescribes the fixed set of medicine brands for specific illness. Across the selected cities, patients relatively favoured and were marginally strong in their opinion. (Appendix II, Table 30)

5.11.2 Efficacy of prescribed medicine

Patients were asked about their opinion regarding the relief from prescribed medicine. Across all the selected cities, patients relatively favoured the statement that prescribed medicine provides them immediate relief but were diverse in their opinion. Patients were neutral on the statement that prescribed medicine will cure in few days and also stop in aggravation of disease and were diverse in their opinion. Patients relatively favoured the statement that illness will take its own time and medicines cannot provide complete treatment but were diverse in their opinion. (Appendix II, Table 31)

5.11.3 Moral and professional obligation of doctor

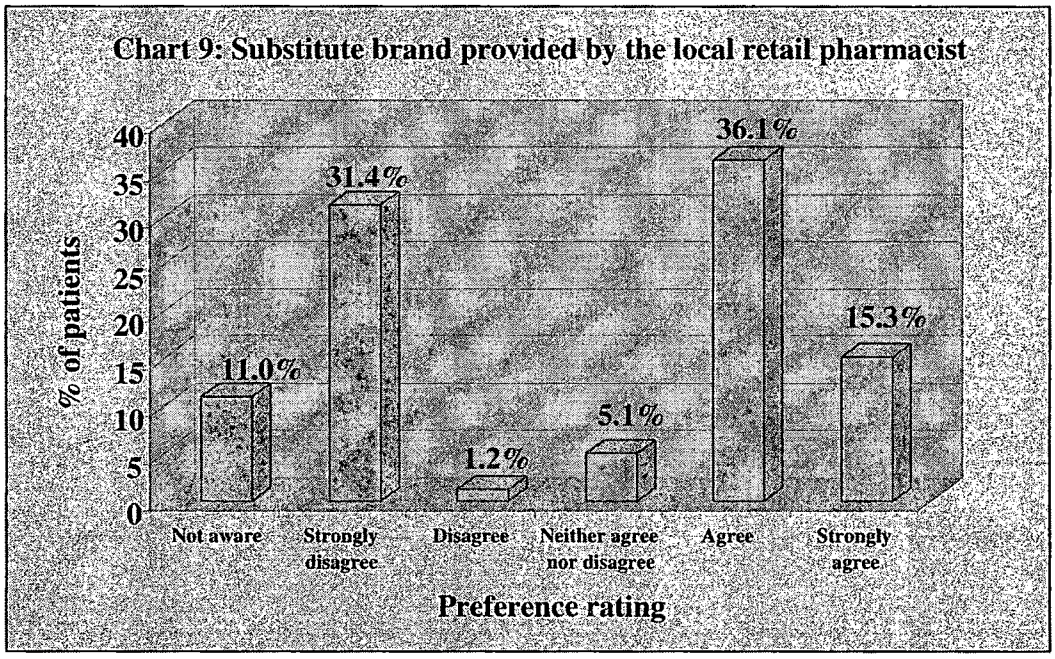
Patients were asked that whether the doctor while listening to the brief about illness and prescribing medicines, shows the moral and professional obligation in improving their health. Across all the selected cities, patients relatively favoured the statement and were strong in their opinion. (Appendix II, Table 32)

5.11.4 Patient awareness about drug efficacy

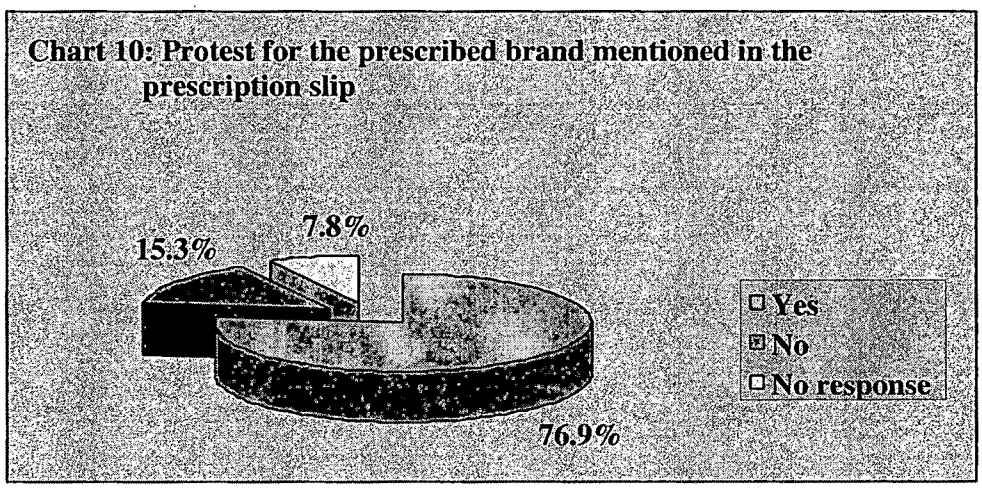
Patients were asked that when the physician is prescribing medicines, they are mostly not aware about its efficacy. Across all the selected cities, patients were neutral on the statement and had a diverse opinion. (Appendix II, Table 32)

5.12 Behaviour of local retail pharmacist

Patients were asked that when the prescribed brand is not available with the local retail pharmacist, whether he tends to give a substitute brand. Across all the selected cities, *51.4%* patients were in strong favour of the statement (36.1% were agreed and 15.3% were strongly agreed), and *31.4%* patients were not in favour of the statement. (Appendix II, Table 33)

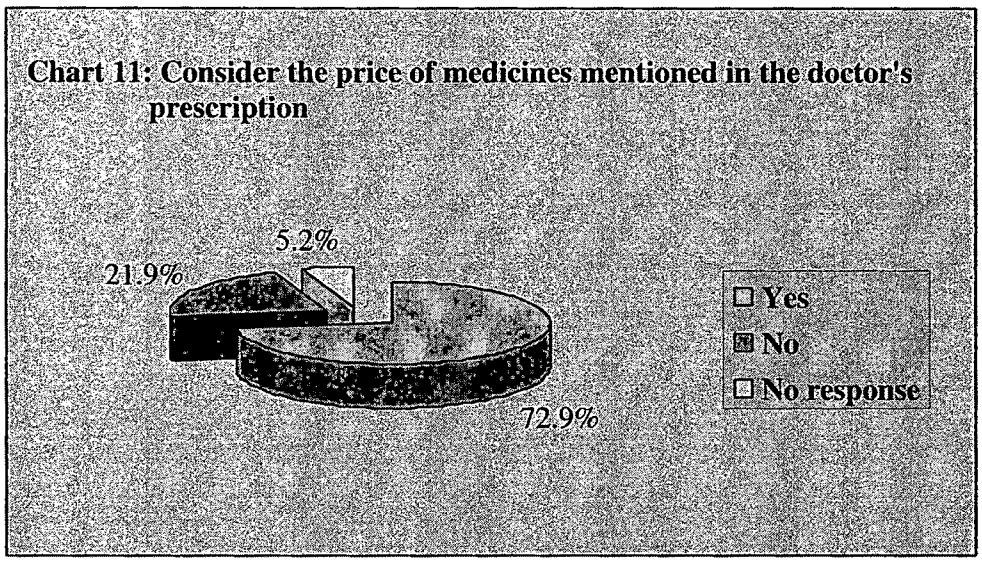


Patients who were aware regarding the substitute brand provided by the local retail pharmacist were asked that whether they protest for the prescribed brand mentioned in the prescription slip. Across all the selected cities, 76.9% patients responded *yes* and 15.3% patients answered *no*. (Appendix II, Table 33)



5.13 Prescription cost of the doctor

Patients were asked that whether the price of medicines really matters when it is prescribed by the doctor. Across all the selected cities, 72.9% patients responded *yes* whereas 21.9% of patients answered *no*. (Appendix II, Table 34)



5.14 Prescription fees of doctor

Patients were asked that whether the prescription fees of the doctor is worth paying as medicines in the prescription are effective. Across all the selected cities, patients strongly favoured the statement and were marginally diverse in their opinion. Patients were asked that whether the prescription fees of the doctor is worth paying because of the location and ambience. They relatively not in favour of the statement and had a diverse opinion. Patients were asked that whether the prescription fees of the doctor is worth paying because there is no other qualified and effective doctor in the area. They neither favoured nor disfavoured the statement but were diverse in their opinion.

Patients were asked that whether the prescription fees of the doctor is worth paying because they had to maintain good relationship with the doctor. They relatively favoured the statement but were diverse in their opinion. Patients were asked that whether the prescription fees of the doctor is worth paying because they had a trust of right prescription and guidelines. They strongly favoured the statement and were marginally diverse in their opinion. Patients were asked that whether the prescription fees of the doctor is worth paying because of the other reasons. They believe that there are no other reasons. (Appendix II, Table 35)

5.15 Perceived reasons for the prescription fees

Patients were asked that the prescription fee they are paying is because the doctor is located at a posh area. Across all the selected cities, patients relatively disagree on the statement and had a diverse opinion. Patients relatively disagree and had a diverse opinion on the statement that the prescription fee they are paying is due to the ambience of the doctor's chamber. Patients were asked that whether the prescription fee they are paying is the average fee in the city. Across all the selected cities, they were relatively in favour but had a diverse opinion on the statement. Patients were asked that whether there are other reasons for the cost of prescription. They believe that there are no other reasons. (Appendix II, Table 36)

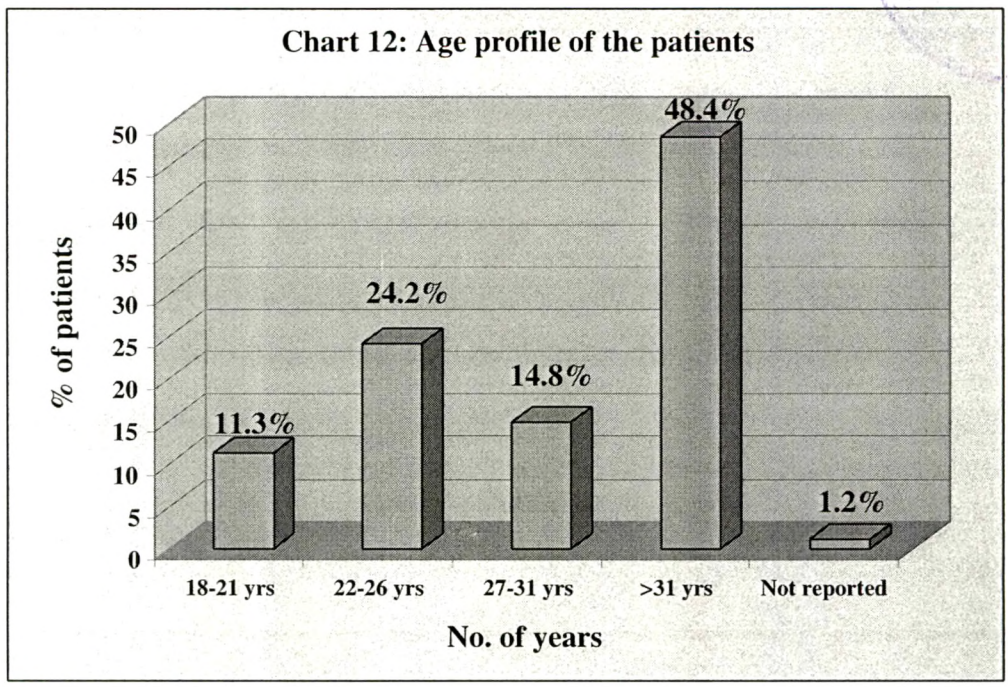
5.16 Attributes perceived while buying medicines

Patients were asked whether they normally look at the prescription slip to inquire about the efficacy of the medicines. Across all the selected cities, patients favoured the statement but were diverse in their opinion. Patients favoured but were diverse in their opinion on the statement that they normally stick to the medicine prescribed in the slip. Patients were asked that whether sometimes they inquire about the substitutes, in case the prescribed medicine is not available with the chemist. Across all the selected cities, patients were disagree on the statement and had a diverse opinion. (Appendix II, Table 37)

5.17 Demographic profile of the patients

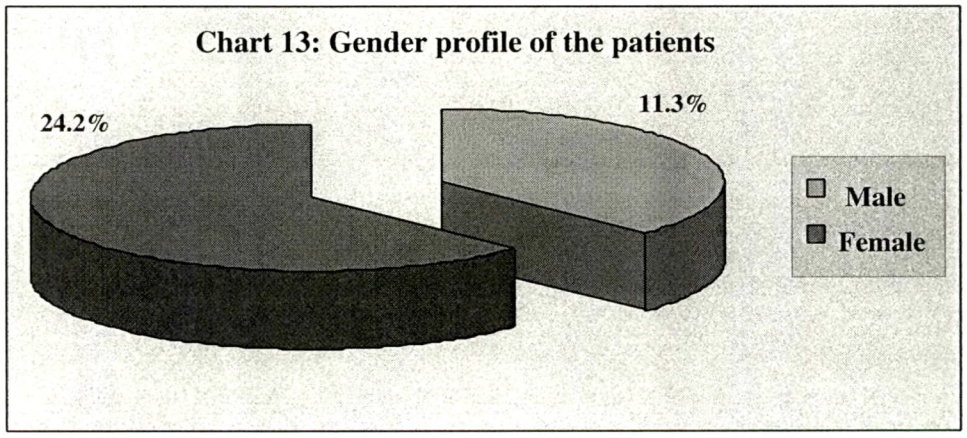
5.17.1 Age profile of the patients

Across all the selected cities, 48.4% patients were more than 31 years of age, 39% of patients were of the age range of 22 to 31 years and 11.3% patients were of the age range of 18 to 21 years. (Appendix II, Table 38)



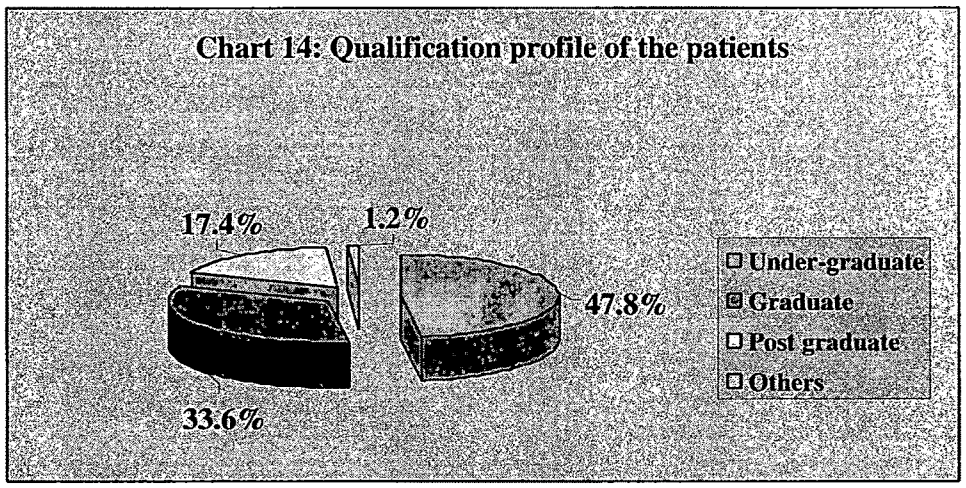
5.17.2 Gender of the patients

In all the selected cities, 37.2% male patients and 62.8% female patients were surveyed. (Appendix II, Table 38)



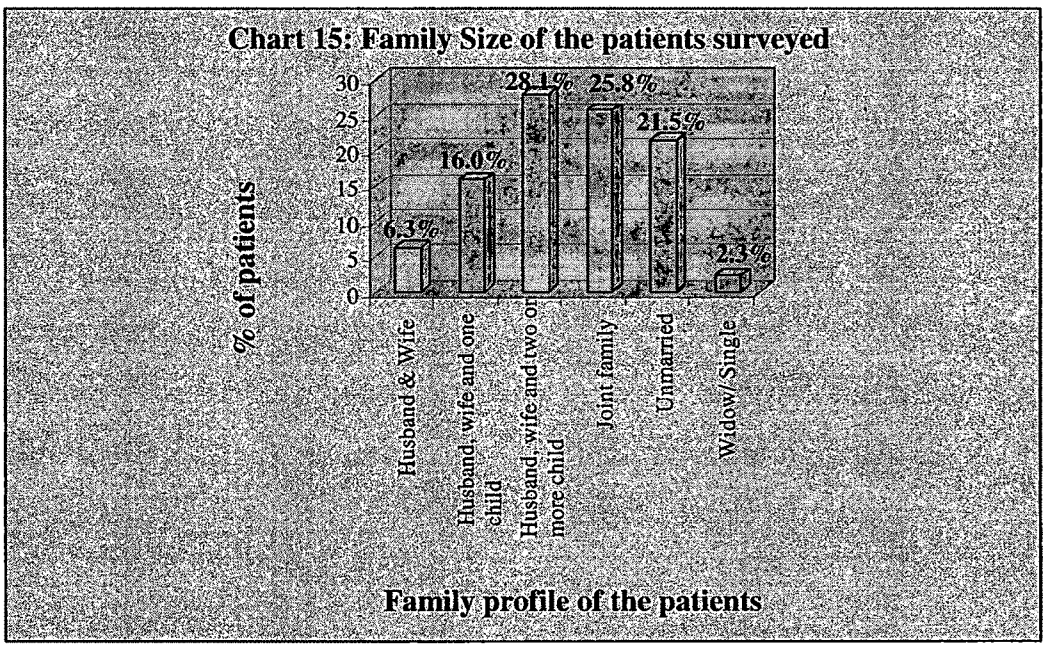
5.17.3 Qualification of the patients

Across all the selected cities, 47.8% patients were under-graduate, 33.6% were graduates and 17.4% patients were post-graduate. (Appendix II, Table 38)



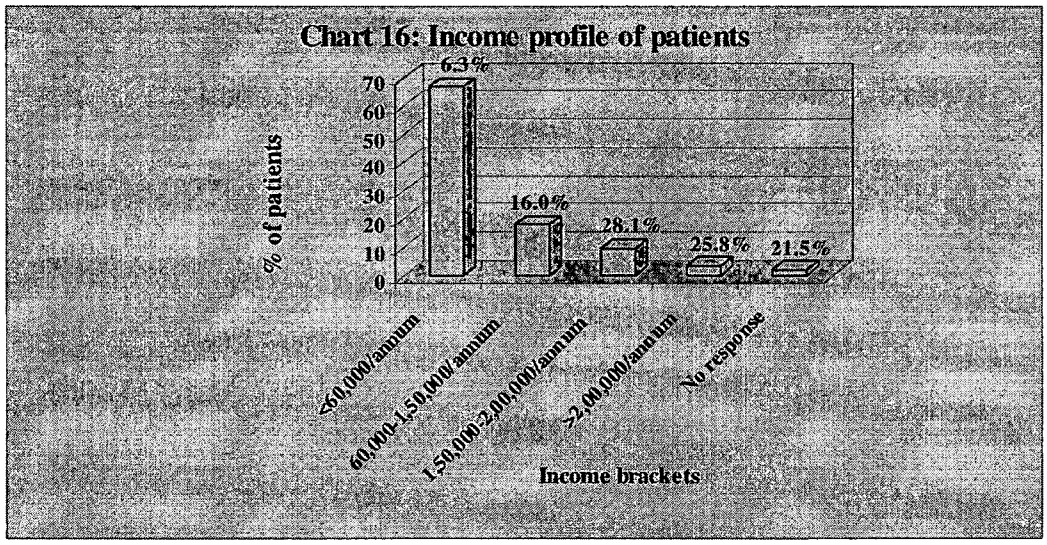
5.17.4 Family size of the patients

Across all the selected cities, 28.1% families that were surveyed had a family size of husband and wife with two or more children, 25.8% were joint families and 21.5% were unmarried. (Appendix II, Table 38)



5.17.5 Income profile of the patients

Across all the selected cities, 66.8% patients surveyed were having annual income of less than Rs. 60.000, 18% patients were in the range of income from Rs. 60,000 to Rs. 1,50,000 per annum and the rest were in the income bracket of more that Rs. 1,50,000 per annum. (Appendix II, Table 38)



II. Patients response: Bivariate and Multivariate analysis

5.18 ANOVA: ***Four*** composite variables and ***nineteen*** variables i.e. V1 to V19, were used separately for ANOVA. Similarly, ***four*** composite variables and ***twenty four*** variables i.e. V1 to V24 were used separately for Factor analysis.

Four composite variables:

1. Prescription behaviour of physician. (Carthy, et. al., 2000, Carrin, 1987, Forster, 1991, Coleman, 2000, Ryan, 1990, and Watkins et.al, 2003)
2. Prescription cost of the doctor. (Audit Commission, 1996 and Avery, 2000)
3. Reasons for the prescription cost. (Gönül, et al. 2001, Carthy, et.al., 2000, Leffler, 1981)
4. Attributes perceived while buying generic/ ethical medicines. (Carrin, 1987 and Zwanenberg, 1987)

Nineteen variables:

Coding	Description
V1	Doctor prescribe medicines for similar number of days
V2	Doctor ask you to visit him/ her again
V3	Prescribes fixed set of medicine brands for specific illness
V4	Prescribed medicine provides me relief immediately
V5	Illness may take few days but will not aggravate due to the prescribed medicine
V6	Prescribed medicine cannot provide relief from the illness as it will take its own time
V7	Physician while listening to your brief about the illness and prescribing you medicines, shows his/ her moral and professional obligation in improving your health
V8	When the physician is prescribing you medicines, you are mostly not aware about its effectiveness
V9	Prescription fee is worth paying because prescribed medicines are effective
V10	Prescription fee is worth paying because of the location and ambience
V11	Prescription fee is worth paying because there is no other equally qualified and effective physician near-by
V12	Prescription fee is worth paying because want to maintain good relationship
V13	Prescription fee is worth paying because of the trust of getting right prescription and guidelines
V14	Prescription cost is because he/ she is located at posh area
V15	Prescription cost is because of the ambience where the doctor sits
V16	Prescription cost is because this is the average prescription fees in the city
V17	I normally look into the prescription slip to enquire about the effectiveness of the prescribed medicines
V18	I normally stick to the medicine name prescribed in the slip
V19	I sometimes do ask for substitute medicines, in case the prescribed medicine in not available with the chemist near to my vicinity

5.18.1 ANOVA for years of age categories and four composite variables

It can be seen from the ANOVA (Appendix II, Table 39), that *F statistic* value (0.717) for the first composite variable at $\alpha = 0.05$ is less than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the years of age of the patient do have a significant impact on the *prescription behaviour of the doctor.*

The *F statistic* value (4.238) for the second composite variable at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the years of age of the patient do not have any significant impact on the *prescription cost of the doctor.*

The value of *F statistic* (0.645) for the third composite variable at $\alpha = 0.05$ is less than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the years of age of the patient do have a significant impact on the *reasons for the prescription cost.*

For the fourth composite variable, the value of *F statistic* (5.840) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the years of age of the patient do not have any significant impact on the *attributes perceived while buying generic or ethical drugs.*

Inference: It can be inferred that categories of year of age of the patient i.e. 18-21 years, 22-26 years, 27-31 years and more than 31 years, do not have any significant impact on the *prescription cost of the doctor*, the *attributes perceived while buying generic or ethical drugs*. However, these patient years of age categories have significant impact on the *prescription behaviour of the doctor* and the *reasons for the prescription cost*. **The implications from the above findings are that the doctor identifies type of prescription like the dosage strength and the set of drugs based on the age of the patient. This means that the prescription cost for the younger patient may relatively vary compared to the older patients. However, the patient's age do not have any impact on the prescription fees of the doctor, the possibility of drug substitution and awareness about the efficacy of a prescribed drug.**

5.18.2 ANOVA for the gender categories and four composite variables

It can be seen from the ANOVA (Appendix II, Table 40), that *F statistic* value (1.379) for the first composite variable at $\alpha = 0.05$ is less than the critical value (3.48) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the gender of the patient do have a significant impact on the *prescription behaviour of the doctor*.

The *F statistic* value (1.032) for the second composite variable at $\alpha = 0.05$ is less than the critical value (3.48) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the

category means are equal is accepted. This means that the gender of the patient do have a significant impact on the *prescription cost of the doctor.*

The value of *F statistic* (4.173) for the third composite variable at $\alpha = 0.05$ is more than the critical value (3.48) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the gender of the patient do not have any significant impact on the *reasons for the prescription cost.*

For the fourth composite variable, the value of *F statistic* (0.025) is less than the critical value (3.48) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the gender of the patient do have a significant impact on the *attributes perceived while buying generic or ethical drugs.*

Inference: It can be inferred that categories of gender of the patient i.e. male and female, do have a significant impact on the *prescription behaviour of the doctor,* the *prescription cost of the doctor*, and the *attributes perceived while buying generic or ethical drugs.* However, the gender of the patient does not have any significant impact on the *reasons for the prescription cost.* **The implications from the above findings are that the female patients have relatively more faith on the doctor's prescription and guidelines and have relatively less knowledge about the efficacy of the drug compare to the male patients.**

5.18.3 ANOVA for the education categories and four composite variables

It can be seen from the ANOVA (Appendix II, Table 41), that *F statistic* value (0.282) for the first composite variable at $\alpha = 0.05$ is less than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the level of education of the patient do have a significant impact on the *prescription behaviour of the doctor.*

The *F statistic* value (0.314) for the second composite variable at $\alpha = 0.05$ is less than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the level of education of the patient do have a significant impact on the *prescription cost of the doctor.*

The value of *F statistic* (0.581) for the third composite variable at $\alpha = 0.05$ is less than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the level of education of the patient do have a significant impact on the *reasons for the prescription cost.*

For the fourth composite variable, the value of *F statistic* (1.107) is less than the critical value (2.60) at $\alpha = 0.05$ for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the level of education of the patient do have a significant impact on the *attributes perceived while buying generic or ethical drugs.*

Inference: It can be inferred that categories of level of education of the patient i.e. Under graduate, Graduate, Post-Graduate and Others, do have a significant impact on the *prescription behaviour of the doctor,* the *prescription cost of the doctor*, the *attributes perceived while buying generic or ethical drugs* and the *reasons for the prescription cost.* **The implications from the above findings are that the level of education of the patients does have a relatively strong impact on the understanding about the prescription behaviour of doctor, rationale for the prescription fees, the curiosity to know about the efficacy of the drug and knowledge of the substitute drugs.**

5.18.4 ANOVA for the family size categories and four composite variables

It can be seen from the ANOVA (Appendix II, Table 42), that *F statistic* value (6.474) for the first composite variable at $\alpha = 0.05$ is more than the critical value (2.21) for 5 and 244 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the family size of the patient do not have any significant impact on the *prescription behaviour of the doctor.*

The *F statistic* value (3.686) for the second composite variable at $\alpha = 0.05$ is more than the critical value (2.21) for 5 and 244 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the family size of the patient do not have any significant impact on the *prescription cost of the doctor.*

The value of *F statistic* (0.725) for the third composite variable at $\alpha = 0.05$ is less than the critical value (2.21) for 5 and 244 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the family size of the patient do have a significant impact on the *reasons for the prescription cost.*

For the fourth composite variable, the value of *F statistic* (7.577) is more than the critical value (2.21) at $\alpha = 0.05$ for 5 and 244 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the family size of the patient do not have any significant impact on the *attributes perceived while buying generic or ethical drugs.*

Inference: It can be inferred that categories of family size of the patient i.e. Husband and wife; Husband, wife and one child; Husband, wife and two or more child; Joint family; Unmarried; Widow/Single, do have a significant impact on the *reasons for the prescription cost.* However, the family size of the patient does not have any significant impact on the *prescription behaviour of the doctor,* the *prescription cost of the doctor,* and the *attributes perceived while buying generic or ethical drugs.* **The implications from the above findings are that the patients, who are having relatively larger number of members in the family, are tend to be comparatively more cautious about the prescription cost of the doctor than the patients with smaller family size.**

5.18.5 ANOVA for the income group categories and four composite variables

It can be seen from the ANOVA (Appendix II, Table 43), that *F statistic* value (4.210) for the first composite variable at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the income group of the patient does not have any significant impact on the *prescription behaviour of the doctor.*

The *F statistic* value (4.986) for the second composite variable at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the income group of the patient does not have any significant impact on the *prescription cost of the doctor.*

The value of *F statistic* (13.105) for the third composite variable at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the income group of the patient does not have any significant impact on the *reasons for the prescription cost.*

For the fourth composite variable, the value of *F statistic* (14.417) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the income group of the patient does not have any significant impact on the *attributes perceived while buying generic or ethical drugs.*

Inference: It can be inferred that categories of income group of the patient i.e. less than 60,000 per annum, 60,000 to 1.5 lakhs per annum, 1.5 lakhs to 2 lakhs per annum, more than 2 lakhs per annum, do not have any significant impact on the *prescription behaviour of the doctor*, the *prescription cost of the doctor*, the *reasons for the prescription cost* and the *attributes perceived while buying generic or ethical drugs.* **The implications from the above findings are that the income level of the patient do not have any impact over the understanding about prescription behaviour of the doctor, prescription cost to the patient, rationale for the prescription fees, the curiosity to know about the efficacy of the drug and knowledge of the substitute drugs.**

5.18.6 ANOVA for patients age categories and nineteen construct variables

It can be seen from the ANOVA (Appendix II, Table 44), that *F statistic* value (3.612) for variable V1 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's age do not have any significant impact on the opinion that *the doctor prescribe medicines for similar number of days.*

The *F statistic* value (1.112) for the variable V2 at $\alpha = 0.05$ is less than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's age does have a significant impact on the opinion that *the doctor asks you to visit him/ her again.*

The value of *F statistic* (7.528) for the variable V3 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's age does not have any significant impact on the opinion that *the doctor prescribes fixed set of medicine brands for specific illness.*

For the variable V4, the value of *F statistic* (3.247) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's age does not have any significant impact on the opinion that that *the prescribed medicine provides me relief immediately.*

F statistic value (4.520) for variable V5 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's age do not have any significant impact on the opinion that *the illness may take few days but will not aggravate due to the prescribed medicine.*

The *F statistic* value (1.521) for the variable V6 at $\alpha = 0.05$ is less than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's age does have a significant impact on the opinion that *the prescribed medicine cannot provide relief from the illness as it will take its own time.*

The value of *F statistic* (4.805) for the variable V7 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's age does not have any significant impact on the opinion that *the physician while listening to your brief about the illness and prescribing you medicines shows his/ her moral and professional obligation in improving your health.*

For the variable V8, the value of *F statistic* (2.693) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's age does not have any significant impact on the opinion that *when the physician is prescribing you medicines, you are mostly not aware about its effectiveness.*

The *F statistic* value (1.296) for variable V9 at $\alpha = 0.05$ is less than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's age do have a significant impact on the opinion that *the prescription fee is worth paying because prescribed medicines are effective.*

The *F statistic* value (3.237) for the variable V10 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's age does not have any significant impact on the opinion that *the prescription fee is worth paying because of the*

location and ambience.

The value of *F statistic* (7.392) for the variable V11 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's age does not have any significant impact on the opinion that *the prescription fee is worth paying because there is no other equally qualified and effective physician near-by.*

For the variable V12, the value of *F statistic* (3.368) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's age does not have any significant impact on the opinion that *the prescription fee is worth paying because want to maintain good relationship.*

The value of *F statistic* (3.348) for the variable V13 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's age does not have any significant impact on the opinion that *the prescription fee is worth paying because of the trust of getting right prescription and guidelines.*

For the variable V14, the value of *F statistic* (0.905) is less than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's age does have a significant

impact on the opinion that *the prescription cost is because he/ she is located at posh area.*

For the variable V15, the value of *F statistic* (1.190) is less than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's age does have a significant impact on the opinion that *the prescription cost is because of the ambience where the doctor sits.*

The value of *F statistic* (1.692) for the variable V16 at $\alpha = 0.05$ is less than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's age does have a significant impact on the opinion that *the prescription cost is because this is the average prescription fees in the city.*

For the variable V17, the value of *F statistic* (9.247) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's age does not have any significant impact on the opinion that *I normally look into the prescription slip to enquire about the effectiveness of the prescribed medicines.*

The value of *F statistic* (8.008) for the variable V18 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category

means are equal is rejected. This means that the patient's age does not have any significant impact on the opinion that *I normally stick to the medicine name prescribed in the slip.*

For the variable V19, the value of *F statistic* (3.386) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's age does not have any significant impact on the opinion that *I sometimes do ask for substitute medicines, in case the prescribed medicine in not available with the chemist near to my vicinity.*

Inference: It can be inferred that the patient's age categories i.e. 18-21 years, 22-26 years, 27-31 years and more than 31 years, do not have any significant impact on the variables V1 '*Doctor prescribe medicines for similar number of days*', V3 '*Prescribes fixed set of medicine brands for specific illness*', V4 '*Prescribed medicine provides me relief immediately*', V5 '*Illness may take few days but will not aggravate due to the prescribed medicine*', V7 '*Physician while listening to your brief about the illness and prescribing you medicines, shows his/ her moral and professional obligation in improving your health*', V8 '*When the physician is prescribing you medicines, you are mostly not aware about its effectiveness*', V10 '*Prescription fee is worth paying because of the location and ambience*', V11 '*Prescription fee is worth paying because there is no other equally qualified and effective physician near-by*', V12 '*Prescription fee is worth paying because want to maintain good relationship*', V13 '*Prescription fee is worth paying because of the trust of getting right prescription and guidelines*', V17 '*I normally*

look into the prescription slip to enquire about the effectiveness of the prescribed medicines', V18 '*I normally stick to the medicine name prescribed in the slip*' and V19 '*I sometimes do ask for substitute medicines, in case the prescribed medicine in not available with the chemist near to my vicinity*'. However, the patient's age categories have significant impact on the variables V2 '*Doctor ask you to visit him/ her again*', V6 '*Prescribed medicine cannot provide relief from the illness as it will take its own time*', V9 '*Prescription fee is worth paying because prescribed medicines are effective*', V14 '*Prescription cost is because he/ she is located at posh area*', V15 '*Prescription cost is because of the ambience where the doctor sits*' and V16 '*Prescription cost is because this is the average prescription fees in the city*'. **Thus, the implications from the above findings are that the doctors normally differ in their prescription approach and tend to stress more for a revisit by the younger patients than the older ones. Younger patients relatively relying more on the medicines for relief from the illness whereas older ones believe that illness will take its own time but medicines will restrict the aggravation of a disease. Patients with older age have relatively more rational approach of thinking towards the prescription cost than the younger ones.**

5.18.7 ANOVA for categories of patient's gender and nineteen construct variables

It can be seen from the ANOVA (Appendix II, Table 45), that *F statistic* value (0.026) for variable V1 at $\alpha = 0.05$ is less than the critical value (3.84) for 1 and 248 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's gender do have a significant impact on the opinion that *the doctor prescribe medicines for similar number of days.*

The *F statistic* value (0.008) for the variable V2 at $\alpha = 0.05$ is less than the critical value (3.84) for 1 and 284 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's gender does have a significant impact on the opinion that *the doctor asks you to visit him/ her again.*

The value of *F statistic* (0.001) for the variable V3 at $\alpha = 0.05$ is less than the critical value (3.84) for 1 and 248 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's gender does have a significant impact on the opinion that *the doctor prescribes fixed set of medicine brands for specific illness.*

For the variable V4, the value of *F statistic* (1.361) is less than the critical value (3.84) at $\alpha = 0.05$ for 1 and 248 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's gender does have a significant impact on the opinion that that *the prescribed medicine provides me relief immediately.*

F statistic value (1.154) for variable V5 at $\alpha = 0.05$ is less than the critical value (3.84) for 1 and 248 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's gender do have a significant impact on the opinion that *the illness may take few days but will not aggravate due to the prescribed medicine.*

The *F statistic* value (0.717) for the variable V6 at $\alpha = 0.05$ is less than the critical value (3.84) for 1 and 248 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's gender does have a significant impact on the opinion that *the prescribed medicine cannot provide relief from the illness as it will take its own time.*

The value of *F statistic* (0.107) for the variable V7 at $\alpha = 0.05$ is less than the critical value (3.84) for 1 and 248 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's gender does have a significant impact on the opinion that *the physician while listening to your brief about the illness and prescribing you medicines shows his/ her moral and professional obligation in improving your health.*

For the variable V8, the value of *F statistic* (2.523) is less than the critical value (3.84) at $\alpha = 0.05$ for 1 and 248 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's gender does have a significant impact on the opinion that *when the physician is prescribing you medicines, you are mostly not aware about its effectiveness.*

The *F statistic* value (0.911) for variable V9 at $\alpha = 0.05$ is less than the critical value (3.84) for 1 and 248 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's gender do have a significant

impact on the opinion that *the prescription fee is worth paying because prescribed medicines are effective.*

The *F statistic* value (4.524) for the variable V10 at $\alpha = 0.05$ is more than the critical value (3.84) for 1 and 248 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's gender does not have any significant impact on the opinion that *the prescription fee is worth paying because of the location and ambience.*

The value of *F statistic* (3.441) for the variable V11 at $\alpha = 0.05$ is less than the critical value (3.84) for 1 and 248 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's gender does have a significant impact on the opinion that *the prescription fee is worth paying because there is no other equally qualified and effective physician near-by.*

For the variable V12, the value of *F statistic* (0.077) is less than the critical value (3.84) at $\alpha = 0.05$ for 1 and 248 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's gender does have a significant impact on the opinion that *the prescription fee is worth paying because want to maintain good relationship.*

The value of *F statistic* (10.430) for the variable V13 at $\alpha = 0.05$ is more than the critical value (3.84) for 1 and 248 degrees of freedom. Thus, the null hypothesis that the category

means are equal is rejected. This means that the patient's gender does not have any significant impact on the opinion that *the prescription fee is worth paying because of the trust of getting right prescription and guidelines.*

For the variable V14, the value of *F statistic* (1.861) is less than the critical value (3.84) at $\alpha = 0.05$ for 1 and 248 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's gender does have a significant impact on the opinion that *the prescription cost is because he/ she is located at posh area.*

For the variable V15, the value of *F statistic* (1.383) is less than the critical value (3.84) at $\alpha = 0.05$ for 1 and 248 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's gender does have a significant impact on the opinion that *the prescription cost is because of the ambience where the doctor sits.*

The value of *F statistic* (3.812) for the variable V16 at $\alpha = 0.05$ is less than the critical value (3.84) for 1 and 248 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's gender does have a significant impact on the opinion that *the prescription cost is because this is the average prescription fees in the city.*

For the variable V17, the value of *F statistic* (0.718) is less than the critical value (3.84) at $\alpha = 0.05$ for 1 and 248 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's gender does have a significant impact on the opinion that *I normally look into the prescription slip to enquire about the effectiveness of the prescribed medicines.*

The value of *F statistic* (0.001) for the variable V18 at $\alpha = 0.05$ is less than the critical value (3.84) for 1 and 248 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's gender does have a significant impact on the opinion that *I normally stick to the medicine name prescribed in the slip.*

For the variable V19, the value of *F statistic* (0.795) is less than the critical value (3.84) at $\alpha = 0.05$ for 1 and 248 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's gender does have a significant impact on the opinion that *I sometimes do ask for substitute medicines, in case the prescribed medicine in not available with the chemist near to my vicinity.*

Inference: It can be inferred that the patient's gender categories i.e. Male and Female, do have a significant impact on the variables V1 '*Doctor prescribe medicines for similar number of days*', V2 '*Doctor ask you to visit him/ her again*', V3 '*Prescribes fixed set of medicine brands for specific illness*', V4 '*Prescribed medicine provides me relief immediately*', V5 '*Illness may take few days but will not aggravate due to the prescribed medicine*', V6 '*Prescribed medicine cannot provide relief from the illness as it will take*

its own time', V7 '*Physician while listening to your brief about the illness and prescribing you medicines, shows his/ her moral and professional obligation in improving your health*', V8 '*When the physician is prescribing you medicines, you are mostly not aware about its effectiveness*', V9 '*Prescription fee is worth paying because prescribed medicines are effective*', V11 '*Prescription fee is worth paying because there is no other equally qualified and effective physician near-by*', V12 '*Prescription fee is worth paying because want to maintain good relationship*', V14 '*Prescription cost is because he/ she is located at posh area*', V15 '*Prescription cost is because of the ambience where the doctor sits*', V16 '*Prescription cost is because this is the average prescription fees in the city*', V17 '*I normally look into the prescription slip to enquire about the effectiveness of the prescribed medicines*', V18 '*I normally stick to the medicine name prescribed in the slip*' and V19 '*I sometimes do ask for substitute medicines, in case the prescribed medicine in not available with the chemist near to my vicinity*'. However, the patient's gender categories do not have any significant impact on the variables V10 '*Prescription fee is worth paying because of the location and ambience*' and V13 '*Prescription fee is worth paying because of the trust of getting right prescription and guidelines*'. **Thus, the implications from the above findings are that the prescription approach of the doctor, the perception regarding efficacy of medicines over the illness, perception regarding the rationale for the prescription fee of the doctor and the perception regarding the reasons for the prescription cost tend to differ for a male and female patient. Female patients are relatively more emotional and trustworthy while following a doctor's prescription than the male patients.**

5.18.8 ANOVA for categories of patient's education and nineteen variables

It can be seen from the ANOVA (Appendix II, Table 46), that *F statistic* value (2.084) for variable V1 at $\alpha = 0.05$ is less than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's education do have a significant impact on the opinion that *the doctor prescribe medicines for similar number of days.*

The *F statistic* value (1.082) for the variable V2 at $\alpha = 0.05$ is less than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's education does have a significant impact on the opinion that *the doctor asks you to visit him/ her again.*

The value of *F statistic* (1.603) for the variable V3 at $\alpha = 0.05$ is less than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's education does have a significant impact on the opinion that *the doctor prescribes fixed set of medicine brands for specific illness.*

For the variable V4, the value of *F statistic* (2.999) is more than the critical value (2.60) at $\alpha = 0.05$ for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's education does not have any significant impact on the opinion that that *the prescribed medicine provides me relief immediately.*

F statistic value (5.052) for variable V5 at $\alpha = 0.05$ is more than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's education do not have any significant impact on the opinion that *the illness may take few days but will not aggravate due to the prescribed medicine.*

The *F statistic* value (3.620) for the variable V6 at $\alpha = 0.05$ is more than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's education does not have any significant impact on the opinion that *the prescribed medicine cannot provide relief from the illness as it will take its own time.*

The value of *F statistic* (0.655) for the variable V7 at $\alpha = 0.05$ is less than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's education does have a significant impact on the opinion that *the physician while listening to your brief about the illness and prescribing you medicines shows his/ her moral and professional obligation in improving your health.*

For the variable V8, the value of *F statistic* (2.463) is less than the critical value (2.60) at $\alpha = 0.05$ for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's education does have a

significant impact on the opinion that *when the physician is prescribing you medicines, you are mostly not aware about its effectiveness.*

The *F statistic* value (2.686) for variable V9 at $\alpha = 0.05$ is more than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's education do not have any significant impact on the opinion that *the prescription fee is worth paying because prescribed medicines are effective.*

The *F statistic* value (1.275) for the variable V10 at $\alpha = 0.05$ is less than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's education does have a significant impact on the opinion that *the prescription fee is worth paying because of the location and ambience.*

The value of *F statistic* (1.769) for the variable V11 at $\alpha = 0.05$ is less than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's education does have a significant impact on the opinion that *the prescription fee is worth paying because there is no other equally qualified and effective physician near-by.*

For the variable V12, the value of *F statistic* (1.013) is less than the critical value (2.60) at $\alpha = 0.05$ for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category

means are equal is accepted. This means that the patient's education does have a significant impact on the opinion that *the prescription fee is worth paying because want to maintain good relationship.*

The value of *F statistic* (0.920) for the variable V13 at $\alpha = 0.05$ is less than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's education does have a significant impact on the opinion that *the prescription fee is worth paying because of the trust of getting right prescription and guidelines.*

For the variable V14, the value of *F statistic* (1.953) is less than the critical value (2.60) at $\alpha = 0.05$ for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's education does have a significant impact on the opinion that *the prescription cost is because he/ she is located at posh area.*

For the variable V15, the value of *F statistic* (1.195) is less than the critical value (2.60) at $\alpha = 0.05$ for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's education does have a significant impact on the opinion that *the prescription cost is because of the ambience where the doctor sits.*

The value of *F statistic* (4.192) for the variable V16 at $\alpha = 0.05$ is more than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's education does not have any significant impact on the opinion that *the prescription cost is because this is the average prescription fees in the city.*

For the variable V17, the value of *F statistic* (2.761) is more than the critical value (2.60) at $\alpha = 0.05$ for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's education does not have any significant impact on the opinion that *I normally look into the prescription slip to enquire about the effectiveness of the prescribed medicines.*

The value of *F statistic* (0.344) for the variable V18 at $\alpha = 0.05$ is less than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's education does have a significant impact on the opinion that *I normally stick to the medicine name prescribed in the slip.*

For the variable V19, the value of *F statistic* (0.979) is less than the critical value (2.60) at $\alpha = 0.05$ for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's education does have a significant impact on the opinion that *I sometimes do ask for substitute medicines, in case the prescribed medicine in not available with the chemist near to my vicinity.*

Inference: It can be inferred that the patient's education categories i.e. Under graduate, Graduate, Post-Graduate and Others, do have a significant impact on the variables V1 '*Doctor prescribe medicines for similar number of days*', V2 '*Doctor ask you to visit him/ her again*', V3 '*Prescribes fixed set of medicine brands for specific illness*', V7 '*Physician while listening to your brief about the illness and prescribing you medicines, shows his/ her moral and professional obligation in improving your health*', V8 '*When the physician is prescribing you medicines, you are mostly not aware about its effectiveness*', V10 '*Prescription fee is worth paying because of the location and ambience*', V11 '*Prescription fee is worth paying because there is no other equally qualified and effective physician near-by*', V12 '*Prescription fee is worth paying because want to maintain good relationship*', V13 '*Prescription fee is worth paying because of the trust of getting right prescription and guidelines*', V14 '*Prescription cost is because he/ she is located at posh area*', V15 '*Prescription cost is because of the ambience where the doctor sits*', V18 '*I normally stick to the medicine name prescribed in the slip*' and V19 '*I sometimes do ask for substitute medicines, in case the prescribed medicine in not available with the chemist near to my vicinity*'. However, the patient's education do not have any significant impact on the variables V4 '*Prescribed medicine provides me relief immediately*', V5 '*Illness may take few days but will not aggravate due to the prescribed medicine*', V6 '*Prescribed medicine cannot provide relief from the illness as it will take its own time*', V9 '*Prescription fee is worth paying because prescribed medicines are effective*', V16 '*Prescription cost is because this is the average prescription fees in the city*', and V17 '*I normally look into the prescription slip to enquire about the effectiveness of the prescribed medicines*'. **Thus, the implications from the above**

findings are that the thinking towards the prescription approach of the doctor, perception regarding the rationale for the prescription fee of the doctor, the perception regarding the reasons for the prescription cost may differ based on the education level of the patient. Patients with relatively higher level of education will be able to understand better about the complexities of the prescription approach of a doctor and tend to be more rational thinkers regarding the prescription fee of the doctor and the prescription cost to them. With higher level of education of the patient, the possibility of substitution of medicine brand mentioned in the prescription is relatively higher.

5.18.9 ANOVA for categories of patient's family size and nineteen variables

It can be seen from the ANOVA (Appendix II, Table 47), that *F statistic* value (2.774) for variable V1 at $\alpha = 0.05$ is more than the critical value (2.21) for 5 and 244 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's family size do not have any significant impact on the opinion that *the doctor prescribe medicines for similar number of days.*

The *F statistic* value (2.066) for the variable V2 at $\alpha = 0.05$ is less than the critical value (2.21) for 5 and 244 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's family size does have a significant impact on the opinion that *the doctor asks you to visit him/ her again.*

The value of *F statistic* (2.804) for the variable V3 at $\alpha = 0.05$ is more than the critical value (2.21) for 5 and 244 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's family size does not have any significant impact on the opinion that *the doctor prescribes fixed set of medicine brands for specific illness.*

For the variable V4, the value of *F statistic* (1.369) is less than the critical value (2.21) at $\alpha = 0.05$ for 5 and 244 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's family size does have a significant impact on the opinion that that *the prescribed medicine provides me relief immediately.*

F statistic value (10.113) for variable V5 at $\alpha = 0.05$ is more than the critical value (2.21) for 5 and 244 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's family size do not have any significant impact on the opinion that *the illness may take few days but will not aggravate due to the prescribed medicine.*

The *F statistic* value (4.880) for the variable V6 at $\alpha = 0.05$ is more than the critical value (2.21) for 5 and 244 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's family size does not have any significant impact on the opinion that *the prescribed medicine cannot provide relief from the illness as it will take its own time.*

The value of *F statistic* (3.502) for the variable V7 at $\alpha = 0.05$ is more than the critical value (2.21) for 5 and 244 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's family size does not have any significant impact on the opinion that *the physician while listening to your brief about the illness and prescribing you medicines shows his/ her moral and professional obligation in improving your health.*

For the variable V8, the value of *F statistic* (3.810) is more than the critical value (2.21) at $\alpha = 0.05$ for 5 and 244 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's family size does not have any significant impact on the opinion that *when the physician is prescribing you medicines, you are mostly not aware about its effectiveness.*

The *F statistic* value (2.121) for variable V9 at $\alpha = 0.05$ is less than the critical value (2.21) for 5 and 244 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's family size do have a significant impact on the opinion that *the prescription fee is worth paying because prescribed medicines are effective.*

The *F statistic* value (4.379) for the variable V10 at $\alpha = 0.05$ is more than the critical value (2.21) for 5 and 244 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's family size does not have any significant impact on the opinion that *the prescription fee is worth paying because of the*

location and ambience.

The value of *F statistic* (8.687) for the variable V11 at $\alpha = 0.05$ is more than the critical value (2.21) for 5 and 244 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's family size does not have any significant impact on the opinion that *the prescription fee is worth paying because there is no other equally qualified and effective physician near-by.*

For the variable V12, the value of *F statistic* (2.959) is more than the critical value (2.21) at $\alpha = 0.05$ for 5 and 244 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's family size does not have any significant impact on the opinion that *the prescription fee is worth paying because want to maintain good relationship.*

The value of *F statistic* (0.353) for the variable V13 at $\alpha = 0.05$ is less than the critical value (2.21) for 5 and 244 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's family size does have a significant impact on the opinion that *the prescription fee is worth paying because of the trust of getting right prescription and guidelines.*

For the variable V14, the value of *F statistic* (0.517) is less than the critical value (2.21) at $\alpha = 0.05$ for 5 and 244 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's family size does have a

significant impact on the opinion that *the prescription cost is because he/ she is located at posh area.*

For the variable V15, the value of *F statistic* (1.714) is less than the critical value (2.21) at $\alpha = 0.05$ for 5 and 244 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's family size does have a significant impact on the opinion that *the prescription cost is because of the ambience where the doctor sits.*

The value of *F statistic* (4.172) for the variable V16 at $\alpha = 0.05$ is more than the critical value (2.21) for 5 and 244 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's family size does not have any significant impact on the opinion that *the prescription cost is because this is the average prescription fees in the city.*

For the variable V17, the value of *F statistic* (3.597) is more than the critical value (2.21) at $\alpha = 0.05$ for 5 and 244 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's family size does not have any significant impact on the opinion that *I normally look into the prescription slip to enquire about the effectiveness of the prescribed medicines.*

The value of *F statistic* (4.033) for the variable V18 at $\alpha = 0.05$ is more than the critical value (2.21) for 5 and 244 degrees of freedom. Thus, the null hypothesis that the category

means are equal is rejected. This means that the patient's family size does not have any significant impact on the opinion that *I normally stick to the medicine name prescribed in the slip.*

For the variable V19, the value of *F statistic* (4.844) is more than the critical value (2.21) at $\alpha = 0.05$ for 5 and 244 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's family size does not have any significant impact on the opinion that *I sometimes do ask for substitute medicines, in case the prescribed medicine in not available with the chemist near to my vicinity.*

Inference: It can be inferred that the patient's family size categories i.e. Husband and wife; Husband, wife and one child; Husband, wife and two or more child; Joint family; Unmarried; and Widow/Single, do have a significant impact on the variables V2 '*Doctor ask you to visit him/ her again*', V4 '*Prescribed medicine provides me relief immediately*', V9 '*Prescription fee is worth paying because prescribed medicines are effective*', V13 '*Prescription fee is worth paying because of the trust of getting right prescription and guidelines*', V14 '*Prescription cost is because he/ she is located at posh area*', and V15 '*Prescription cost is because of the ambience where the doctor sits*'. However, the patient's family size does not have any significant impact on the variables V1 '*Doctor prescribe medicines for similar number of days*', V3 '*Prescribes fixed set of medicine brands for specific illness*', V5 '*Illness may take few days but will not aggravate due to the prescribed medicine*', V6 '*Prescribed medicine cannot provide relief from the illness as it will take its own time*', V7 '*Physician while listening to your*

brief about the illness and prescribing you medicines, shows his/ her moral and professional obligation in improving your health', V8 '*When the physician is prescribing you medicines, you are mostly not aware about its effectiveness*', V10 '*Prescription fee is worth paying because of the location and ambience*', V11 '*Prescription fee is worth paying because there is no other equally qualified and effective physician near-by*', V12 '*Prescription fee is worth paying because want to maintain good relationship*', V16 '*Prescription cost is because this is the average prescription fees in the city*', V17 '*I normally look into the prescription slip to enquire about the effectiveness of the prescribed medicines*', V18 '*I normally stick to the medicine name prescribed in the slip*' and V19 '*I sometimes do ask for substitute medicines, in case the prescribed medicine in not available with the chemist near to my vicinity*'. **Thus, the implications from the above findings are that the patients with relatively larger family size may be visiting doctor more regularly than the patients with smaller family size. As the patient with larger family size visit frequently to the doctor, there is relatively greater possibility to develop trust over the treatment and its price worthiness.**

5.18.10 ANOVA for categories of patient's income and nineteen variables

It can be seen from the ANOVA (Appendix II, Table 48), that *F statistic* value (13.956) for variable V1 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's income do not have any significant impact on the opinion that *the doctor prescribe medicines for similar number of days.*

The *F statistic* value (3.874) for the variable V2 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's income does not have any significant impact on the opinion that *the doctor asks you to visit him/ her again.*

The value of *F statistic* (1.027) for the variable V3 at $\alpha = 0.05$ is less than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's income does have a significant impact on the opinion that *the doctor prescribes fixed set of medicine brands for specific illness.*

For the variable V4, the value of *F statistic* (23.953) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's income does not have any significant impact on the opinion that that *the prescribed medicine provides me relief immediately.*

The *F statistic* value (2.720) for variable V5 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's income do not have any significant impact on the opinion that *the illness may take few days but will not aggravate due to the prescribed medicine.*

The *F statistic* value (3.494) for the variable V6 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's income does not have any significant impact on the opinion that *the prescribed medicine cannot provide relief from the illness as it will take its own time.*

The value of *F statistic* (0.406) for the variable V7 at $\alpha = 0.05$ is less than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's income does have a significant impact on the opinion that *the physician while listening to your brief about the illness and prescribing you medicines shows his/ her moral and professional obligation in improving your health.*

For the variable V8, the value of *F statistic* (1.612) is less than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's income does have a significant impact on the opinion that *when the physician is prescribing you medicines, you are mostly not aware about its effectiveness.*

The *F statistic* value (22.526) for variable V9 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's income do not have any

significant impact on the opinion that *the prescription fee is worth paying because prescribed medicines are effective.*

The *F statistic* value (2.535) for the variable V10 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's income does not have any significant impact on the opinion that *the prescription fee is worth paying because of the location and ambience.*

The value of *F statistic* (1.115) for the variable V11 at $\alpha = 0.05$ is less than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the patient's income does have a significant impact on the opinion that *the prescription fee is worth paying because there is no other equally qualified and effective physician near-by.*

For the variable V12, the value of *F statistic* (7.534) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's income does not have any significant impact on the opinion that *the prescription fee is worth paying because want to maintain good relationship.*

The value of *F statistic* (2.713) for the variable V13 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category

means are equal is rejected. This means that the patient's income does not have any significant impact on the opinion that *the prescription fee is worth paying because of the trust of getting right prescription and guidelines.*

For the variable V14, the value of *F statistic* (3.715) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's income does not have any significant impact on the opinion that *the prescription cost is because he/ she is located at posh area.*

For the variable V15, the value of *F statistic* (5.531) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's income does not have any significant impact on the opinion that *the prescription cost is because of the ambience where the doctor sits.*

The value of *F statistic* (13.052) for the variable V16 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's income does not have any significant impact on the opinion that *the prescription cost is because this is the average prescription fees in the city.*

For the variable V17, the value of *F statistic* (23.202) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's income does not have any significant impact on the opinion that *I normally look into the prescription slip to enquire about the effectiveness of the prescribed medicines.*

The value of *F statistic* (5.460) for the variable V18 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's income does not have any significant impact on the opinion that *I normally stick to the medicine name prescribed in the slip.*

For the variable V19, the value of *F statistic* (4.376) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the patient's income does not have any significant impact on the opinion that *I sometimes do ask for substitute medicines, in case the prescribed medicine in not available with the chemist near to my vicinity.*

Inference: It can be inferred that the patient's income categories i.e. less than 60,000 per annum, 60,000 to 1.5 lakhs per annum, 1.5 lakhs to 2 lakhs per annum, and more than 2 lakhs per annum, do have a significant impact on the variables V3 '*Prescribes fixed set of medicine brands for specific illness*', V7 '*Physician while listening to your brief about the illness and prescribing you medicines, shows his/ her moral and professional*

obligation in improving your health', V8 '*When the physician is prescribing you medicines, you are mostly not aware about its effectiveness*', and V11 '*Prescription fee is worth paying because there is no other equally qualified and effective physician near-by*'. However, the patient's income does not have any significant impact on the variables V1 '*Doctor prescribe medicines for similar number of days*', V2 '*Doctor ask you to visit him/ her again*', V4 '*Prescribed medicine provides me relief immediately*', V5 '*Illness may take few days but will not aggravate due to the prescribed medicine*', V6 '*Prescribed medicine cannot provide relief from the illness as it will take its own time*', V9 '*Prescription fee is worth paying because prescribed medicines are effective*', V10 '*Prescription fee is worth paying because of the location and ambience*', , V12 '*Prescription fee is worth paying because want to maintain good relationship*',V13 '*Prescription fee is worth paying because of the trust of getting right prescription and guidelines*', V14 '*Prescription cost is because he/ she is located at posh area*', V15 '*Prescription cost is because of the ambience where the doctor sits*', V16 '*Prescription cost is because this is the average prescription fees in the city*', V17 '*I normally look into the prescription slip to enquire about the effectiveness of the prescribed medicines*', V18 '*I normally stick to the medicine name prescribed in the slip*' and V19 '*I sometimes do ask for substitute medicines, in case the prescribed medicine in not available with the chemist near to my vicinity*'. **Thus, the implications from the above findings are that the doctors are relatively more cautious about the cost of medicine brands prescribed to the patients with relatively less income for a specific illness. Doctors need to display relatively higher moral and professional obligation while treating the patients with relatively less income. Patients with low income are relatively less**

exposed and are not aware about the efficacy of medicine brands as they rely less on medicine treatment than on homely treatments for normal illness.

5.19 Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.676	*.489*	*22*

The *Cronbach's alpha* or *coefficient alpha* value (0.676) shows fairly strong internal consistency reliability of the 22 scaled items used to construct the patient's beliefs.

Inference: The scaled items assessed through the Cronbach's alpha are found to be fairly consistent and reliable.

5.20 Factor Analysis

Nine construct variables and ***twenty four*** variables i.e. V1 to V24, were used separately for Factor analysis. These two separate variable sets used to test factor analysis, correlation and descriptive analysis. The details of the selected variables are mentioned below:

Nine construct variables:

Variable 1: Prescription behaviour of the doctor.

Variable 2: Prescription fee of the doctor.

Variable 3: Prescription cost of the doctor.

Variable 4: Attributes perceived while buying generic or ethical medicines.

Variable 5: Age of the patient.

Variable 6: Sex of the patient.

Variable 7: Qualification of the patient.

Variable 8: Family size of the patient.

Variable 9: Income group of the patient.

Twenty four construct variables:

Coding	Description
V1	Doctor prescribe medicines for similar number of days
V2	Doctor ask you to visit him/ her again
V3	Prescribes fixed set of medicine brands for specific illness
V4	Prescribed medicine provides me relief immediately
V5	Illness may take few days but will not aggravate due to the prescribed medicine
V6	Prescribed medicine cannot provide relief from the illness as it will take its own time
V7	Physician while listening to your brief about the illness and prescribing you medicines, shows his/ her moral and professional obligation in improving your health
V8	When the physician is prescribing you medicines, you are mostly not aware about its effectiveness
V9	Prescription fee is worth paying because prescribed medicines are effective
V10	Prescription fee is worth paying because of the location and ambience
V11	Prescription fee is worth paying because there is no other equally qualified and effective physician near-by
V12	Prescription fee is worth paying because want to maintain good relationship
V13	Prescription fee is worth paying because of the trust of getting right prescription and guidelines
V14	Prescription cost is because he/ she is located at posh area
V15	Prescription cost is because of the ambience where the doctor sits
V16	Prescription cost is because this is the average prescription fees in the city
V17	Do you normally look into the prescription slip to enquire about the effectiveness of the prescribed medicine(s)
V18	I normally stick to the medicine name prescribed in the slip
V19	I sometimes do ask for substitute medicines, in case the prescribed medicine in not available with the chemist near to my vicinity
V20	Age profile of the patients
V21	Gender profile of the patients
V22	Qualification of the patients
V23	Family size of the patients
V24	Income group of the patients

5.20.1 Factor Analysis of Nine construct variables

The ***prescription cost of the doctor*** has relatively high correlation with the ***prescription fee of the doctor*** (0.653) and the ***attributes perceived while buying generic/ethical medicines*** (0.549). Thus, it is implied that the prescription fee of the doctor alongwith the perceived benefits of the generic substitutes or the prescribed drug constitutes the prescription cost for the patients.

Factor 1 account for a variance of 2.590, which is 28.780% of the total variance explained by the 3 factors. ***Factor 2*** account for a variance of 1.595 and explaining 17.718% of total variance. Similarly, ***Factor 3*** accounts for a variance of 1.143, which is 12.702% of the total variance. Thus, three factors combined together explain 59.200% of total variance, which is relatively significant.

Rotated component matrix shows that ***Factor 1*** has relatively high coefficients for variables '*prescription behaviour of the doctor*' (.709), '*prescription fee of the doctor*' (.797), '*prescription cost of the doctor*' (.887), '*Attributes perceived while buying generic/ethical medicines*' (.629) and '*income group*' (.471). Therefore, this factor is labeled as '**trust on prescription**'. ***Factor 2*** is relatively related high with variables 'family size' (.804). Thus, this factor is labeled as '**family strength**'. ***Factor 3*** has relatively high coefficients for variables 'qualification' (.855) .Thus, this factor is labeled as '**education level**'. Now, these three factors will be further verified, by including all the 24 variables, which are there in the belief constructs in the questionnaire, and factor analysis, will be again executed to find the final factors.

Correlation Matrix

		Prescription behaviour of the doctor	Prescription fee of the doctor	prescription cost of the doctor	Attributes perceived while buying generic/ethical medicines	Age	Sex	Qualification	Family Size	Income Group
Correlation	Prescription behaviour of the doctor	1.000	.445	.541	.298	.003	.074	-.033	-.082	.130
	Prescription fee of the doctor	.445	1.000	.653	.326	.090	.064	.035	-.065	.220
	prescription cost of the doctor	.541	.653	1.000	.549	.026	.129	.020	.074	.330
	Attributes perceived while buying generic/ethical medicines	.298	.326	.549	1.000	-.140	.010	.000	.348	.435
	Age	.003	.090	.026	-.140	1.000	.055	.034	-.285	-.122
	Sex	.074	.064	.129	.010	.055	1.000	-.099	-.021	.101
	Qualification	-.033	.035	.020	.000	.034	-.099	1.000	-.127	.151
	Family Size	-.082	-.065	.074	.348	-.285	-.021	-.127	1.000	.126
	Income Group	.130	.220	.330	.435	-.122	.101	.151	.126	1.000
Sig. (1-tailed)	Prescription behaviour of the doctor		.000	.000	.000	.479	.121	.299	.100	.020
	Prescription fee of the doctor	.000		.000	.000	.078	.155	.291	.154	.000
	prescription cost of the doctor	.000	.000		.000	.342	.021	.374	.121	.000
	Attributes perceived while buying generic/ethical medicines	.000	.000	.000		.013	.437	.497	.000	.000
	Age	.479	.078	.342	.013		.192	.294	.000	.027
	Sex	.121	.155	.021	.437	.192		.059	.370	.056
	Qualification	.299	.291	.374	.497	.294	.059		.022	.008
	Family Size	.100	.154	.121	.000	.000	.370	.022		.023
	Income Group	.020	.000	.000	.000	.027	.056	.008	.023	

Communalities

	Extraction
Prescription behaviour of the doctor	.549
Prescription fee of the doctor	.658
Prescription cost of the doctor	.795
Attributes perceived while buying generic/ethical medicines	.689
Age	.454
Sex	.268
Qualification	.765
Family Size	.662
Income Group	.489

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.659	29.550	29.550	2.590	28.780	28.780
2	1.526	16.959	46.509	1.595	17.718	46.498
3	1.142	12.691	59.200	1.143	12.702	59.200

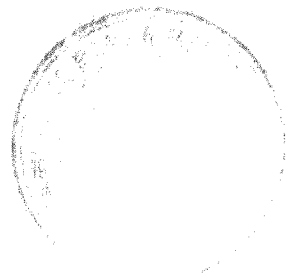
Extraction Method: Principal Component Analysis.

Rotated Component Matrix (a)

	Component		
	1	2	3
Prescription behaviour of the doctor	.709	-.125	-.174
Prescription fee of the doctor	.797	-.148	-.029
Prescription cost of the doctor	.887	.074	-.058
Attributes perceived while buying generic/ethical medicines	.629	.536	.075
Age	.094	-.666	-.047
Sex	.181	-.073	-.479
Qualification	.081	-.166	.855
Family Size	-.016	.804	-.126
Income Group	.471	.377	.353

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 4 iterations.



5.20.2 Factor analysis of twenty four constructs

The Factor Analysis was again run on all 24 variables, to know the overall factors that emerge and contributes to the patient's perception about the prescription behaviour of the doctor and the substitution of branded drugs with the generic versions.

It can be seen from the correlation matrix, that variables V1 '*Doctor prescribe medicines for similar number of days*' and V17 '*Do you normally look into the prescription slip to enquire about the effectiveness of the prescribed medicines*' are highly correlated (**.647**) with each other. V5 '*Illness may take few days but will not aggravate due to the prescribed medicine*' is relatively having strong correlation with the variable V11 '*Prescription fee is worth paying because there is no other equally qualified and effective physician near-by*' (**.675**). Variable V12 '*Prescription fee is worth paying because want to maintain good relationship*' is showing relatively strong correlation with the variable V9 '*Prescription fee is worth paying because prescribed medicines are effective*' (**.608**) and slight correlation with the variable V16 '*Prescription cost is because this is the average prescription fees in the city*' (**.517**). Similarly, variable V14 '*Prescription cost is because he/ she is located at posh area*' is highly correlated with the variables V10 '*Prescription fee is worth paying because of the location and ambience*' (**.743**) and V15 '*Prescription cost is because of the ambience where the doctor sits*' (**.742**).

Factor 1 account for a variance of 4.968, which is 20.700% of the total variance explained by the 7 factors. ***Factor 2*** account for a variance of 4.428 and explaining 18.451% of total variance. Similarly, ***Factor 3*** accounts for a variance of 1.875, which is

7.814% of the total variance. ***Factor 4*** accounts for a variance of 1.564 and is 6.518% of total variance. ***Factor 5*** account for a variance of 1.257 and explaining 5.237% of total variance. ***Factor 6*** accounts for a variance of 1.202 and is 5.008% of total variance. ***Factor 7*** account for a variance of 1.174 and explaining 4.893% of total variance. Thus, ***seven factors*** combined together explain 68.622% of total variance, which is relatively significant.

Rotated component matrix shows that factor loadings for the ***Factor 1*** has relatively high coefficients for variables V5 '*Illness may take few days but will not aggravate due to the prescribed medicine*' (.762), V8 '*When the physician is prescribing you medicines, you are mostly not aware about its effectiveness*' (.763), V10 '*Prescription fee is worth paying because of the location and ambience*' (.870), V11 '*Prescription fee is worth paying because there is no other equally qualified and effective physician near-by*' (.660), V14 '*Prescription cost is because he/ she is located at posh area*' (.865), V15 '*Prescription cost is because of the ambience where the doctor sits*' (.862), and V19 '*I sometimes do ask for substitute medicines, in case the prescribed medicine in not available with the chemist near to my vicinity*'(.536). Thus, this factor is labeled as '**rational and knowledge based**'. Similarly, ***Factor 2*** has relatively high coefficients for variables V1 '*Doctor prescribe medicines for similar number of days*' (.763), V4 '*Prescribed medicine provides me relief immediately*' (.761), V9 '*Prescription fee is worth paying because prescribed medicines are effective*' (.755), V12 '*Prescription fee is worth paying because want to maintain good relationship*' (.790), V16 '*Prescription cost is because this is the average prescription fees in the city*' (.650), V17 '*Do you normally look into the prescription slip to enquire about the effectiveness of the prescribed*

medicines' (.827), and V24 '*Income group of the patients*' (.469). Thus, this factor is labeled as '**loyal and cautious**'. The factor loadings for the ***Factor 3*** has relatively high coefficients for the variables V2 '*Doctor ask you to visit him/ her again*' (.438), V3 '*Prescribes fixed set of medicine brands for specific illness*' (.747), V13 '*Prescription fee is worth paying because of the trust of getting right prescription and guidelines*' (.593), V18 '*I normally stick to the medicine name prescribed in the slip*' (.711) and variable V7 '*Physician while listening to your brief about the illness and prescribing you medicines, shows his/ her moral and professional obligation in improving your health*' (.222). Thus, this factor is labeled as '**believer of ethical behaviour**'. ***Factor 4*** has relatively high coefficients for variable V23 '*Family size of the patients*' (.633). Thus, this factor is labeled as '**number of family members**'. ***Factor 5*** has relatively high coefficients for variables V6 '*Prescribed medicine cannot provide relief from the illness as it will take its own time*' (.785) and V20 '*Age profile of the patients*' (.135). Thus, this factor is labeled as '**home treatment**'. The factor loadings for the ***Factor 6*** have relatively high coefficients for the variable V22 '*Qualification of the patients*' (.835). Thus, this factor is labeled as '**education level**'. ***Factor 7*** has relatively high coefficients for variable V21 '*Gender profile of the patients*' (.916). Thus, this factor is labeled as '**gender**'.

Inference: Out of the original twenty four constructs, seven factors were extracted which were named as:

1. Rational and knowledge based.
2. Loyal and cautious.
3. Believer of ethical behaviour.
4. Number of family members.

5. Home treatment.
6. Education level.
7. Gender.

Patients had a perception that the doctor whom they prefer for treatment, prescribe medicines for a fixed set of days with pre-determined set of medicines and advice them to visit again. They are not relying purely on the doctor's treatment but take medicines for the protection from further aggravation of disease. Patient's trust on the doctor increases if he/she behaves patiently and listens to their brief and writes medicines which are effective. They believe that the treatment cost is mainly because of the location and ambience of the place where doctor sits.

Patients pay the prescription fee, as asked by the doctor, with an expectation that the prescribed medicines are effective and there is no other equally qualified or effective doctor near-by.

Patients, after receiving the prescription slip from the doctor, sometimes inquire about the medicines from their known pharmacist to get their opinion about the prescribed drug efficacy. They normally stick to the medicines prescribed by the doctor. Sometimes they do ask for the substitute medicines having same efficacy and relatively more cost effective, in case the prescribed one is not available with the known pharmacist.

Correlation Matrix

		V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18	V19	V20	V21	V22	V23	V24
Correlation	V1	1	-0.073	-0.097	0.614	-0.2	-0.2	-0.03	-0.1	0	-0	-0.42	0.51	-0.1	0.086	0.174	0.384	0.65	0.231	0.2	-0	-0.01	0.11	0.157	0.354
	V2	-0.1	1	0.248	-0.04	-0.3	0.16	0.305	-0.4	0	-0.2	-0.18	-0.05	0.37	-0.41	-0.35	0.014	-0	0.237	-0	-0	0.006	0.02	0.172	-0.012
	V3	-0.1	0.248	1	-0.02	-0.05	0.14	0.168	-0.3	-0	-0	-0.12	0.09	0.36	-0.19	0.104	0.129	-0.1	0.322	0	-0	0.002	0.09	-0.04	-0.039
	V4	0.61	-0.035	-0.024	1	-0.2	-0.3	0.014	-0.2	0	-0.1	-0.37	0.46	-0.1	0.029	0.168	0.45	0.64	0.186	0.2	-0	-0.07	0.15	0.11	0.258
	V5	-0.2	-0.302	-0.05	-0.2	1	0.18	-0.48	0.62	-0	0.58	0.68	-0.19	-0.3	0.546	0.625	-0.18	-0.3	-0.3	0.3	0	0.066	-0.1	-0.24	-0.119
	V6	-0.2	0.162	0.142	-0.27	0.18	1	-0.07	0.04	-0	0.17	0.18	-0.17	0.05	0.01	0.041	-0.1	-0.2	-0.08	0.1	0	0.054	-0.2	0.028	-0.007
	V7	-0	0.305	0.168	0.014	0.48	-0.1	1	-0.5	-0	-0.5	-0.34	-0.05	0.35	-0.5	0.526	0.076	-0.1	0.203	-0	-0	-0.02	-0.1	0.114	-0.066
	V8	-0.1	-0.369	-0.334	-0.16	0.61	0.04	-0.54	1	-0	0.59	0.63	-0.24	-0.4	0.599	0.619	-0.32	-0.2	-0.25	0.2	0.1	0.1	-0.1	-0.21	-0.019
	V9	0.48	0.011	-0.01	0.485	0.16	-0.2	-0.06	-0.1	1	0.07	-0.19	0.61	0.04	0.063	0.188	0.45	0.53	0.237	0.2	0.1	-0.06	0.14	0.096	0.381
	V10	-0	-0.223	-0.048	-0.1	0.57	0.17	-0.53	0.59	0	1	0.55	-0.03	-0.2	0.743	0.692	-0.14	0.11	0.001	0.4	0	0.134	-0.1	0.021	0.171
	V11	-0.4	-0.178	-0.117	-0.37	0.68	0.18	-0.34	0.63	-0	0.55	1	-0.22	-0.3	0.458	0.439	-0.21	-0.3	-0.27	0.1	0.1	0.117	0.03	-0.31	-0.091
	V12	0.51	-0.046	0.091	0.461	0.19	-0.2	-0.05	-0.2	1	-0	-0.22	1	-0.1	0.128	0.166	0.517	0.57	0.236	0.2	0	-0.02	0.06	0.185	0.249
	V13	-0.1	0.374	0.356	-0.11	0.34	0.05	0.352	-0.4	0	-0.2	-0.29	-0.07	1	-0.4	0.385	-0.05	-0.1	0.232	-0	-0	-0.2	0.06	0.01	-0.057
	V14	0.09	-0.405	-0.193	0.029	0.54	0.01	-0.5	0.6	0	0.7	0.46	0.13	-0.4	1	0.742	-0.11	0.16	-0.07	0.6	0	0.086	-0.1	0.022	0.201
	V15	0.17	-0.35	-0.104	0.168	0.62	0.04	-0.53	0.62	0	0.69	0.44	0.17	-0.4	0.74	1	0.07	0.21	-0.11	0.6	0	0.074	0.01	-0.05	0.194
	V16	0.38	0.014	0.129	0.45	0.18	-0.1	0.076	-0.3	0	-0.1	-0.21	0.5	-0	-0.11	0.07	1	0.41	0.105	0.1	-0	0.123	0.15	0.225	0.337
	V17	0.6	-0.048	-0.071	0.638	0.28	-0.2	-0.14	-0.2	1	0.11	-0.35	0.57	-0.1	0.158	0.211	0.409	1	0.13	0.4	-0	-0.05	0.13	0.241	0.487
	V18	0.23	0.237	0.322	0.186	-0.3	-0.1	0.203	-0.3	0	0	-0.27	0.24	0.23	-0.07	0.106	0.105	0.13	1	-0	-0	0.002	-0	0.168	0.13
	V19	0.17	-0.168	0.005	0.214	0.25	0.14	-0.3	0.22	0	0.42	0.1	0.25	-0.3	0.606	0.554	0.121	0.36	-0.09	1	-0	0.057	-0.1	0.266	0.235
	V20	-0	-0.042	-0.044	-0.02	0.03	0.04	-0.19	0.1	0	0.03	0.11	0.05	-0.1	0.034	0.029	-0.01	-0.1	-0.13	-0	1	0.055	0.03	-0.29	-0.122
	V21	-0	0.006	0.002	-0.07	0.06	0.05	-0.02	0.1	-0	0.13	0.12	-0.02	-0.2	0.086	0.074	0.123	-0.1	0.002	0.1	0.1	1	-0.1	-0.02	0.101
	V22	0.11	0.018	0.088	0.148	0.13	-0.2	-0.05	-0.1	0	-0.1	0.03	0.06	0.06	-0.08	0.008	0.147	0.13	-0.01	-0	0	-0.1	1	-0.13	0.151
	V23	0.16	0.172	-0.044	0.11	0.24	0.03	0.114	-0.2	0	0.02	-0.31	0.19	0.01	0.022	0.053	0.225	0.24	0.168	0.3	-0	-0.02	-0.1	1	0.126
	V24	0.35	-0.012	-0.039	0.258	0.12	-0	-0.07	-0	0	0.17	-0.09	0.25	-0.1	0.201	0.194	0.337	0.49	0.13	0.2	-0	0.101	0.15	0.126	1
Sig(1-tailed)	V1		0.126	0.063	0	0.001	0	0.31	0.01	0	0.26	0	0	0.06	0.087	0.003	0	0	0	0	0.3	0.436	0.04	0.006	0
	V2	0.13		0	0.29	0	0.01	0	0	0	0	0	0.24	0	0	0	0.412	0.23	0	0	0.3	0.465	0.39	0.003	0.423

V3	0.06	0		0.353	0.217	0.01	0.004	0	0	0.23	0.03	0.08	0	0.001	0.051	0.021	0.13	0	0.5	0.2	0.485	0.08	0.242	0.27
V4	0	0.29	0.353		0.001	0	0.416	0.01	0	0.06	0	0	0.04	0.325	0.004	0	0	0.002	0	0.4	0.122	0.01	0.041	0
V5	0	0	0.217	0.001		0	0	0	0	0	0	0	0	0	0	0.002	0	0	0	0.3	0.142	0.02	0	0.03
V6	0	0.005	0.012	0	0.002		0.124	0.29	0	0	0	0	0.21	0.437	0.26	0.063	0.01	0.102	0	0.3	0.199	0	0.329	0.456
V7	0.31	0	0.004	0.416	0	0.12		0	0	0	0	0.22	0	0	0	0.115	0.01	0.001	0	0	0.372	0.22	0.036	0.15
V8	0.01	0	0	0.005	0	0.29	0		0	0	0	0	0	0	0	0	0	0	0	0.1	0.057	0.21	0	0.38
V9	0	0.433	0.437	0	0.006	0.01	0.155	0.01		0.12	0	0	0.27	0.159	0.001	0	0	0	0	0	0.17	0.01	0.066	0
V10	0.26	0	0.227	0.061	0	0	0	0	0		0	0.33	0	0	0	0.014	0.05	0.491	0	0.3	0.017	0.05	0.373	0.003
V11	0	0.002	0.033	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.1	0	0.032	0.34	0	0.075
V12	0	0.235	0.075	0	0.001	0	0.219	0	0	0.33	0		0.14	0.022	0.004	0	0	0	0	0.2	0.391	0.17	0.002	0
V13	0.06	0	0	0.036	0	0.21	0	0	0	0	0	0.14		0	0	0.232	0.05	0	0	0	0.001	0.17	0.435	0.184
V14	0.09	0	0.001	0.325	0	0.44	0	0	0	0	0	0.02	0		0	0.047	0.01	0.13	0	0.3	0.087	0.09	0.365	0.001
V15	0	0	0.051	0.004	0	0.26	0	0	0	0	0	0	0	0		0.135	0	0.047	0	0.3	0.12	0.45	0.201	0.001
V16	0	0.412	0.021	0	0.002	0.06	0.115	0	0	0.01	0	0	0.23	0.047	0.135		0	0.049	0	0.4	0.026	0.01	0	0
V17	0	0.225	0.133	0	0	0.01	0.012	0	0	0.05	0	0	0.05	0.006	0	0		0.02	0	0.1	0.199	0.02	0	0
V18	0	0	0	0.002	0	0.1	0.001	0	0	0.49	0	0	0	0.13	0.047	0.049	0.02		0.1	0	0.487	0.46	0.004	0.02
V19	0	0.004	0.471	0	0	0.02	0	0	0	0	0.06	0	0	0	0	0.028	0	0.075		0.1	0.187	0.06	0	0
V20	0.32	0.253	0.242	0.371	0.308	0.29	0.001	0.06	0	0.32	0.04	0.24	0.02	0.294	0.322	0.41	0.13	0.022	0.1		0.192	0.29	0	0.027
V21	0.44	0.465	0.485	0.122	0.142	0.2	0.372	0.06	0	0.02	0.03	0.39	0	0.087	0.12	0.026	0.2	0.487	0.2	0.2		0.06	0.37	0.056
V22	0.04	0.388	0.082	0.01	0.023	0	0.215	0.21	0	0.05	0.34	0.17	0.17	0.092	0.448	0.01	0.02	0.458	0.1	0.3	0.059		0.022	0.008
V23	0.01	0.003	0.242	0.041	0	0.33	0.036	0	0	0.37	0	0	0.44	0.365	0.201	0	0	0.004	0	0	0.37	0.02		0.023
V24	0	0.423	0.27	0	0.03	0.46	0.15	0.38	0	0	0.08	0	0.18	0.001	0.001	0	0	0.02	0	0	0.056	0.01	0.023	

Communalities

	Extraction
V1	.644
V2	.475
V3	.620
V4	.632
V5	.700
V6	.694
V7	.558
V8	.763
V9	.629
V10	.795
V11	.734
V12	.660
V13	.627
V14	.811
V15	.804
V16	.612
V17	.756
V18	.750
V19	.671
V20	.713
V21	.851
V22	.742
V23	.630
V24	.601

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.402	22.508	22.508	4.968	20.700	20.700
2	4.524	18.850	41.358	4.428	18.451	39.151
3	1.784	7.432	48.790	1.875	7.814	46.965
4	1.474	6.140	54.930	1.564	6.518	53.483
5	1.210	5.040	59.970	1.257	5.237	58.721
6	1.053	4.386	64.356	1.202	5.008	63.729
7	1.024	4.267	68.622	1.174	4.893	68.622

Extraction Method: Principal Component Analysis.

Rotated Component Matrix (a)

	Component						
	1	2	3	4	5	6	7
V1	-.023	.763	-.061	.100	-.215	-.013	-.015
V2	-.390	-.055	.438	.101	.338	.039	.037
V3	-.078	.013	.747	-.089	.208	.063	.019
V4	-.053	.761	-.062	.035	-.196	.031	-.077
V5	.762	-.283	-.092	-.153	.084	-.003	.035
V6	.116	-.207	.116	-.012	.785	-.090	.023
V7	-.660	-.096	.222	.198	-.091	-.057	.114
V8	.763	-.268	-.271	-.077	-.160	.040	.040
V9	.062	.755	.163	-.129	-.020	.109	-.032
V10	.870	-.009	.130	.100	.072	-.044	.063
V11	.660	-.421	-.048	-.205	.088	.206	.164
V12	.022	.790	.125	-.095	-.003	-.103	.022
V13	-.377	-.126	.593	.082	.057	.143	-.294
V14	.865	.125	-.114	.129	-.052	-.118	.023
V15	.862	.231	-.076	.019	.007	.027	.025
V16	-.160	.650	.016	.000	.179	.178	.315
V17	.049	.827	-.095	.220	.014	.071	-.085
V18	-.081	.245	.711	.160	-.331	-.186	.090
V19	.536	.355	-.120	.312	.328	-.191	-.030
V20	.038	.106	-.096	-.813	.135	-.099	.032
V21	.066	-.034	-.019	-.022	.009	-.076	.916
V22	-.049	.140	.028	-.060	-.089	.835	-.101
V23	-.127	.246	-.027	.633	.231	-.314	-.011
V24	.137	.469	.008	.357	.100	.401	.254

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 8 iterations.

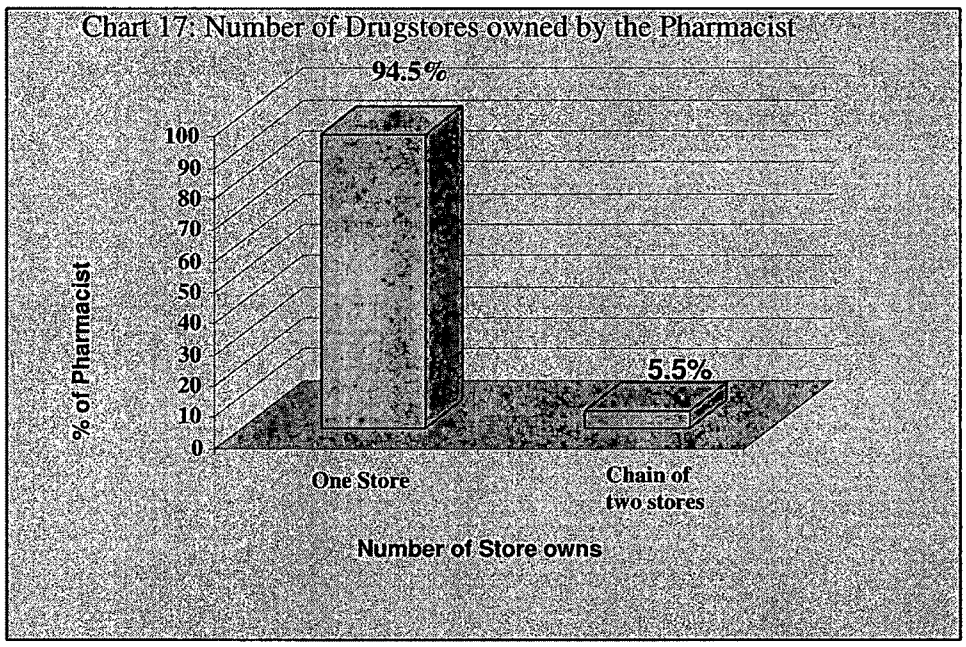
SECTION III PHARMACISTS RESPONSE

I. Pharmacist response: Descriptive analysis

5.21 Details of the pharmacist store

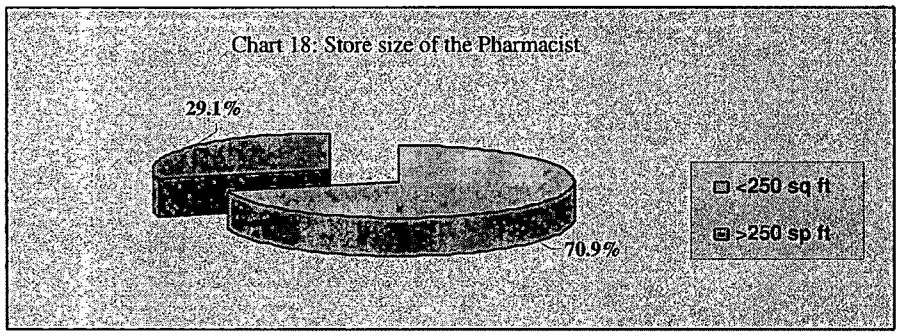
5.21.1 Number of drug stores own

Across all the selected cities, 94.5% pharmacists own one drug store whereas 5.5% pharmacists were having a chain of two stores within a city. (Appendix III, Table 49)



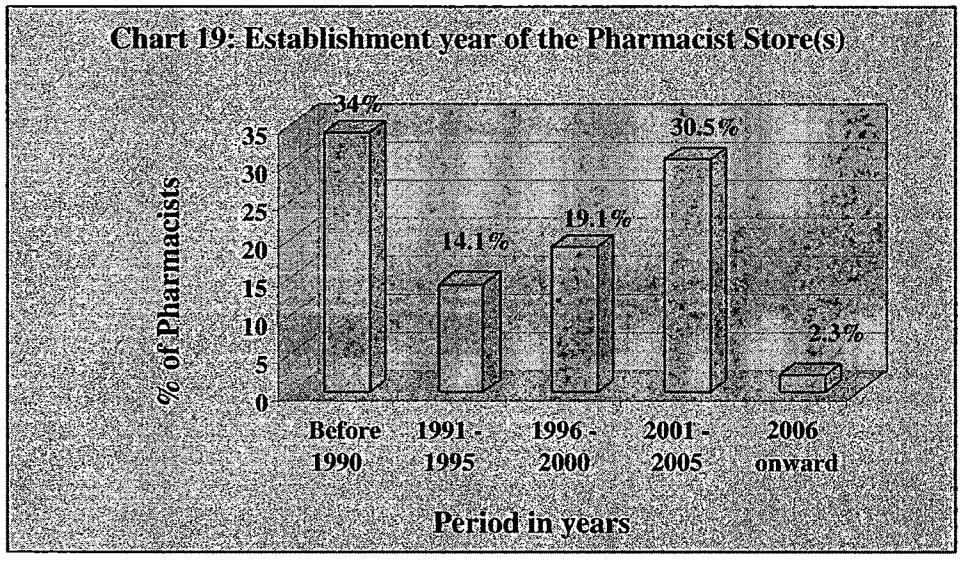
5.21.2 Pharmacist store size

There were 70.9% pharmacists, across all the selected cities, having store size of *less than 250 sq. ft.* and 29.1% pharmacists having *more than 250 sq. ft.* of store area. (Appendix III, Table 49)



5.21.3 Establishment year of the pharmacist store

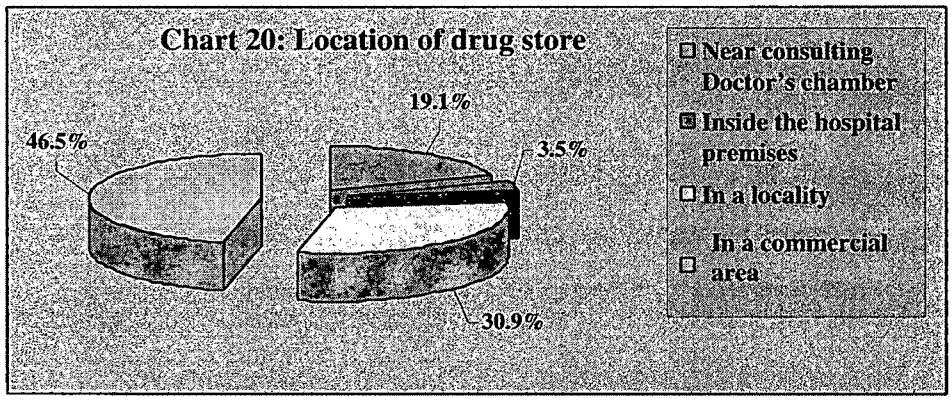
Across all the selected cities, 34% pharmacist stores were established before 1990, 14.1% stores were established during 1991 to 1995. During 1996 to 2000 there were 19.1% stores established. 30.5% pharmacist stores established during 2001 to 2005. After 2006, 2.3% pharmacist stores were established. (Appendix III, Table 49)



5.21.4 Location of the drug store

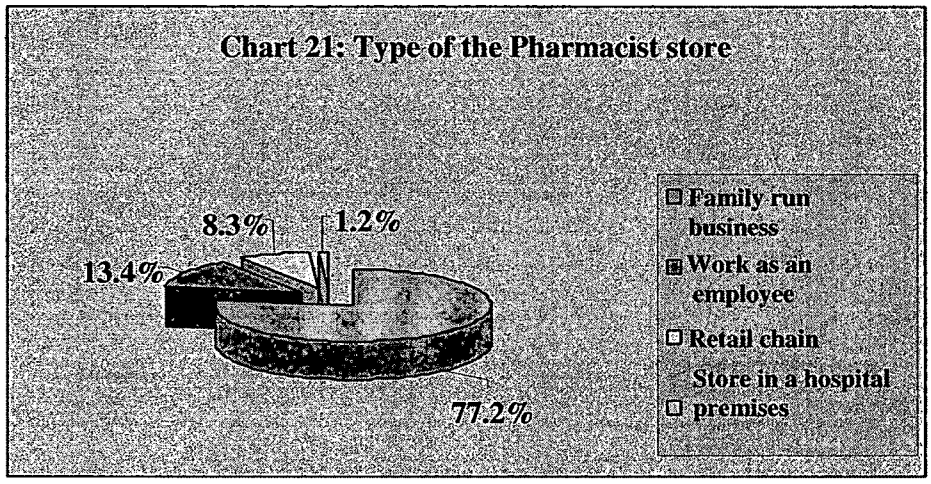
Across all the selected cities, 19.1% pharmacists had their store *near the consulting doctor's chamber*. 3.5% of pharmacists were *inside the hospital premises*. 30.9% of

pharmacists had their store in a *locality* whereas larger numbers of pharmacist stores i.e. 46.5% were located in a *commercial area.* (Appendix III, Table 50)



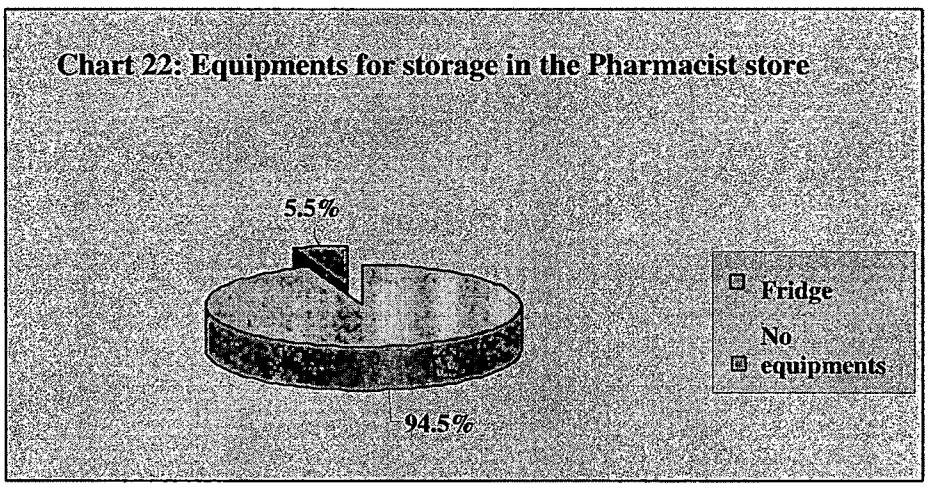
5.21.5 Type of the drug store

Across all the selected cities, 77.2% pharmacist stores were family-run business. 13.4% respondents were working as an employee in a pharmacist store. 8.3% pharmacists were running chain of retail drug stores and 1.2% pharmacists were having their store inside a hospital premises. (Appendix III, Table 51)



5.21.6 Equipments for storage in the Pharmacist store

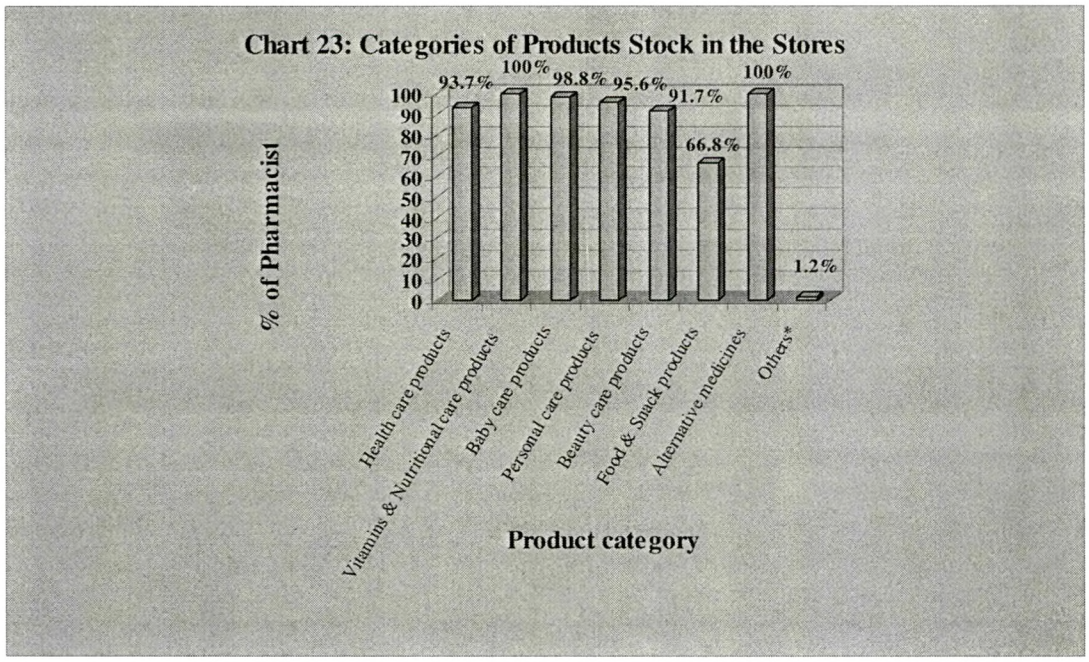
Fridges were used as the major equipment in 94.5% of pharmacist stores across all the selected cities and 5.5% pharmacist stores were not having any equipment for storage of medicines and injectables. Across all the selected cities, 87.4% stores were carrying one equipment, 7.1% stores were having two equipments and 5.5% were having no equipments. (Appendix III, Table 52)



5.22 Stock management

5.22.1 Category of stock in the store

Across all the selected cities, 100% pharmacists carry *Vitamins and Nutritional care products*, and *alternative medicines* in their stores. 98.8% pharmacists were having *baby care products*. 95.6% pharmacists were carrying personal care products. 93.7% were carrying health care products. 91.7% carrying beauty care products. 66.8% pharmacists were having food and snack products in their stores and 1.2% stores were carrying others products like Homeopathic medicines. (Appendix III, Table 53)



(* *Homeopathic medicine)*

5.22.2 Period for keeping the stock

Across the selected cities, almost all the pharmacist carries stock for *alternative medicines* (wtg. avg. 3.183), *vitamins and nutritional care products* (wtg. avg. 3.157). Many carry the stock for *baby care products* (wtg. avg. 2.793), *personal care products* (wtg. avg. 2.749), *beauty care products* (wtg. avg. 2.711) and *health care products* (wtg. avg. 2.709). Few of the pharmacists also carry stock of *food and snack products* in their stores (wtg. avg. 1.974). (Appendix III, Table 54)

Product Category	Rank in terms of Weighted Average
Alternative medicines	***3.183***
Vitamins and Nutritional care products	***3.157***
Baby care products	***2.793***
Personal care products	***2.749***
Beauty care products	***2.711***
Health care products	***2.709***
Food and Snack products	***1.974***

Inference: Pharmacists normally replenish the stocks for alternative medicines, vitamins and nutritional care products relatively more frequently at their store. The replenish of stock for the baby care, personal care, beauty care and health care products was relatively less frequent. The stock replenishment for food and snack products was relatively more infrequent than the other product categories.

5.22.3 Quantity of stock that the store keeps

In the selected cities, almost all the pharmacist carries stock of relatively higher quantity in their stores for *alternative medicines* (wtg. avg. 2.912). Many pharmacists carry the stock of relatively moderate quantity for *vitamins and nutritional care products* (wtg. avg. 2.477). Pharmacists keep stock of relatively less quantity for *personal care products* (wtg. avg. 1.884), *baby care products* (wtg. avg. 1.875), *beauty care products* (wtg. avg. 1.783) and *health care products* (wtg. avg. 1.619). Pharmacists carry relatively lowest stock of *food and snack products* in their stores (wtg. avg. 1.247). (Appendix III, Table 55)

Product Category	Rank in terms of Weighted Average
Alternative medicines	***2.912***
Vitamins and Nutritional care products	***2.477***
Personal care products	***1.884***
Baby care products	***1.875***
Beauty care products	***1.783***
Health care products	***1.619***
Food and Snack products	***1.247***

Inference: In almost all the pharmacist stores across all the selected cities, they keep the stock of relatively higher quantity for alternative medicines, vitamins and nutritional care products. They carry relatively less quantity of stock for personal care, baby care,

beauty care and health care products. The stock of relatively lowest quantity is kept for the food and snack products.

5.22.4 Proportion of monthly income from each product category

Among all the product categories, *vitamins and nutritional care products* contributes relatively higher proportion in the monthly income of the pharmacists across all the selected cities (wtg. avg. 2.189). *Alternative medicines* contribute relatively moderate proportion in the monthly income (wtg. avg. 1.533). Similarly, *personal care products* (wtg. avg. 1.220), *baby care products* (wtg. avg. 1.213), and *beauty care products* (wtg. avg. 1.181) provide moderate proportion in the monthly income of the pharmacist. *Healthcare products* (wtg. avg. 1.131) contribute the lowest proportion in the monthly income. (Appendix III, Table 56)

Product Category	Rank in terms of Weighted Average
Vitamins and Nutritional care products	***2.189***
Alternative medicines	***1.533***
Personal care products	***1.220***
Baby care products	***1.213***
Beauty care products	***1.181***
Health care products	***1.131***
Food and Snack products	***0.869***

Inference: The monthly income of the pharmacists across all the selected cities is relatively more contributed by vitamins, nutritional care and alternative medicines respectively. The proportion of monthly income is relatively less contributed by personal care, baby care, beauty care and health care products.

5.22.5 Movement of stock by product category from the Store counter

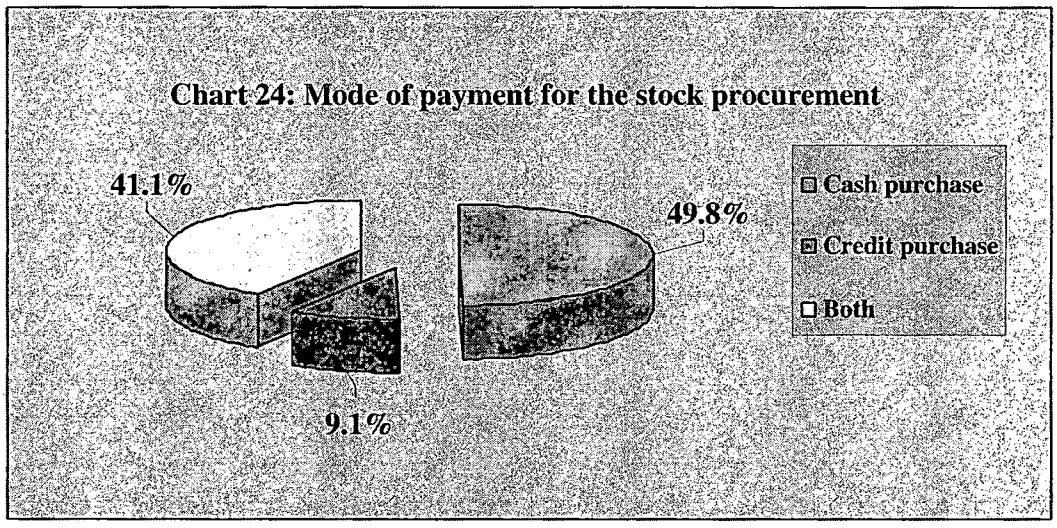
Among all the product categories, *alternative medicines* (wtg. avg. 1.729), *vitamins and nutritional care products* (wtg. avg. 1.659) are relatively fast moving products from the store counter of the pharmacist across all the selected cities. *Personal care products* (wtg. avg. 1.335) and *baby care products* (wtg. avg. 1.320) are relatively slow moving products than the previous ones. *Healthcare products* (wtg. avg. 1.219) and *beauty care products* (wtg. avg. 1.169) are the slowest moving products among all the product categories from the store counter. (Appendix III, Table 57)

Product Category	Rank in terms of Weighted Average
Alternative medicines	***1.729***
Vitamins and Nutritional care products	***1.659***
Personal care products	***1.335***
Baby care products	***1.320***
Health care products	***1.219***
Beauty care products	***1.169***
Food and Snack products	***0.875***

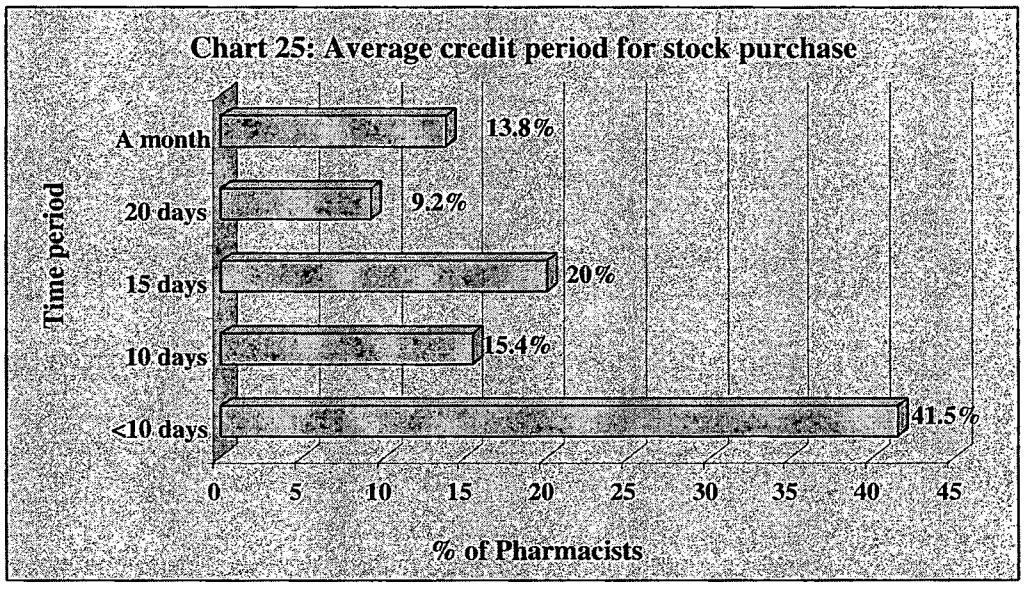
Inference: The stock for alternative medicines, vitamins and nutritional care products are relatively fast moving from the pharmacist store counter. Among all the product categories, the stock for personal care, baby care, health care and beauty care products are relatively slow moving from the store.

5.23 Mode of payment for the stock purchase

Across all the selected cities, 49.8% pharmacists procure stock on cash, 9.1% purchase on credit basis whereas 41.1% pharmacists use the combination of both for the stock purchase (Appendix III, Table 58)



Among the category of pharmacists who purchase stock on credit basis, 41.5% purchase on a credit period of less than 10 days. 20% pharmacists purchase stock on credit of 15 days, 15.4% buy with a credit period of 10 days, 13.8% buy on a credit period of a month and 9.2% pharmacists purchase on a credit period of 20 days. (Appendix III, Table 58)



5.24 Attitudinal Information

5.24.1 Stock of medicine brands

Across all the selected cities, pharmacists were asked that whether they normally stock brands, which are prescribed by the doctors nearby the store. They had favoured the statement and were relatively diverse in their opinion. Pharmacists were asked that whether they normally select medicine brands based on the specialty and preferences of the doctor. They responded favourably and were having relatively diverse opinion. Across all the selected cities, pharmacists were neutral and had a diverse opinion on the statement that they visit doctors nearby their store to fix the set of medicine brands, the range and quantity. Pharmacists were asked that whether they store the set of medicine brands based on the trade margins offered. They were neutral and had a diverse opinion on the statement. Regarding the range of product categories, pharmacists were asked that whether they keep certain common products, as well, to increase the frequency of visit of the customers (patients) to the store. They had favoured the statement and were diverse in their opinion. (Appendix III, Table 59)

5.24.2 Sources of information for keeping medicine brands

Pharmacists were asked that whether they stock medicine brands based on their fast or slow moving trends. They had favoured the statement and were relatively diverse in their opinion. Regarding the reason for keeping specific set of medicine brands, pharmacists were asked that whether this is based on the preference of the doctors nearby the store. They had favoured the statement and were relatively diverse in their opinion. On the

statement that the promotional schemes and trade discounts help them in deciding the specific range of medicine brands or alternative medicines, they had favoured but were diverse in their opinion. Pharmacists were asked that whether the trade margins help them in deciding the final set of medicine brands or alternative medicines for their store. They had marginally favoured the statement and were relatively diverse in their opinion. On the statement that whether they regularly refer to the latest index of medicine brands listed in the Chemist Association circulars for the purchase of medicine brands. They had favoured and were marginally diverse in their opinion. (Appendix III, Table 60)

5.24.3 Stock preferences of medicine brands

Pharmacists were asked that when they purchase specific medicine brand, whether they compare the costs of different medicines with the same efficacy. They had marginally favoured the statement and were relatively diverse in their opinion. Regarding the purchase of medicine brands, pharmacists were asked whether they look at the frequency of prescription slips comes at their store counter. They had favoured the statement and were marginally diverse in their opinion. Pharmacists were asked that whether they look at the shelf life of a specific medicine brand while deciding the stock level. They had favoured the statement and were marginally diverse in their opinion. Pharmacists were asked that whether they keep substitute medicine brands of the same formulation for a particular disease. They had marginally favoured the statement and were diverse in their opinion. Regarding the substitute medicine brands, pharmacists were asked whether they keep the generic version of the same formulation. They had marginally favoured the statement and were relatively diverse in their opinion. Pharmacists, who keep generic

version of the brand medicines with the same formulation, were asked that whether they carry due to the better margins. They had marginally favoured the statement and were relatively diverse in their opinion. Pharmacists were asked that whether they keep generic version of the same formulation as they give better sales volume. They had marginally favoured the statement and were relatively diverse in their opinion. Regarding the decision on the set of medicines for purchase, pharmacists were asked that whether their decision on final set of medicines brands or its generic version is based on the gifts, promotional schemes, trade discounts and the margins offered. They had marginally favoured the statement and were relatively diverse in their opinion. (Appendix III, Table 61)

5.24.4 Impact of generic and the branded version on the cost of treatment of patient

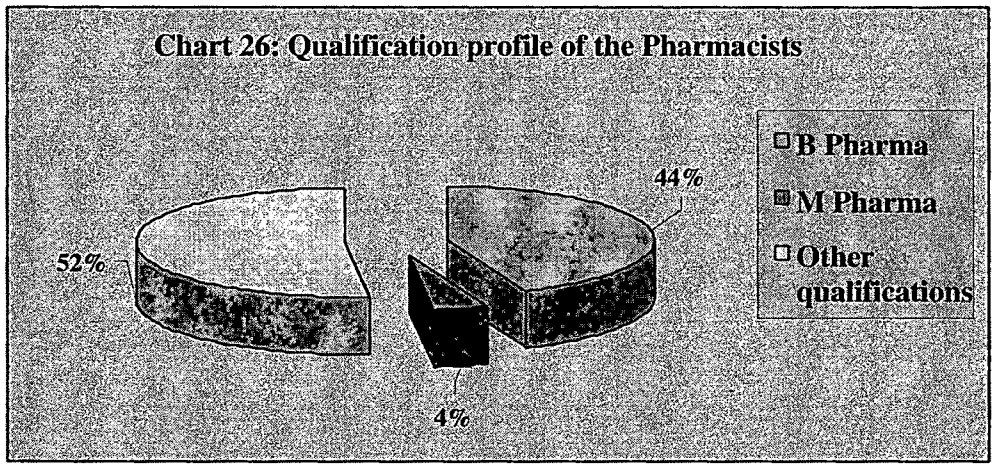
Pharmacists were asked that whether the patients normally ask for cheaper substitute medicines for normal illness. They were relatively disagree on the statement and had a diverse opinion. Regarding the second opinion on the prescription, pharmacists were asked that whether the patients seek advice from them for the generic version of the medicines prescribed by the doctor for a cheaper option. They were relatively disagree on the statement and had a diverse opinion. On the patients from the affluent class, pharmacists were asked that whether they care about the efficacy and not the price of the medicine for normal illness. They had strongly favoured the statement and were having marginally strong opinion. Pharmacists were asked that whether the patients from middle or lower income class inquire about medicines brands with relatively lower price for the

normal illness. They were relatively disagree on the statement and had a diverse opinion. (Appendix III, Table 62)

5.25 Demographic profile of the Pharmacists

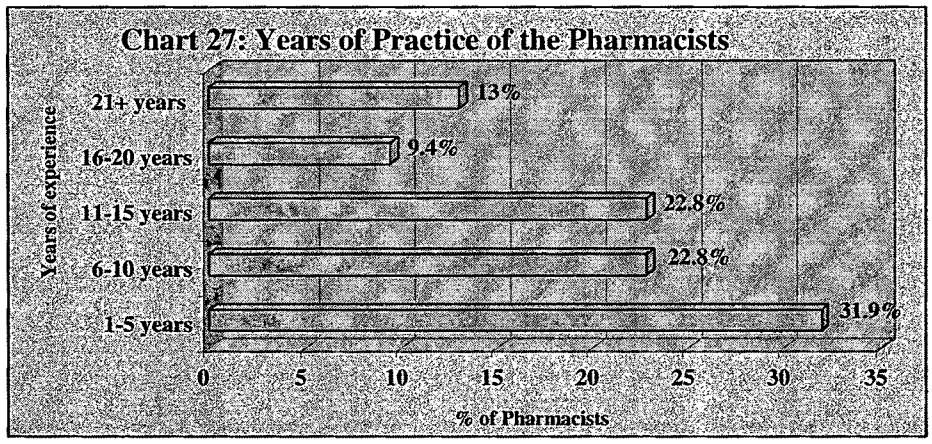
5.25.1 Qualification profile of the Pharmacists

Across all the selected cities, 44% pharmacists were having *B. Pharma*, 4% pharmacists had done *M. Pharma* and 52% pharmacists were carrying *other qualifications*. (Appendix III, Table 63)



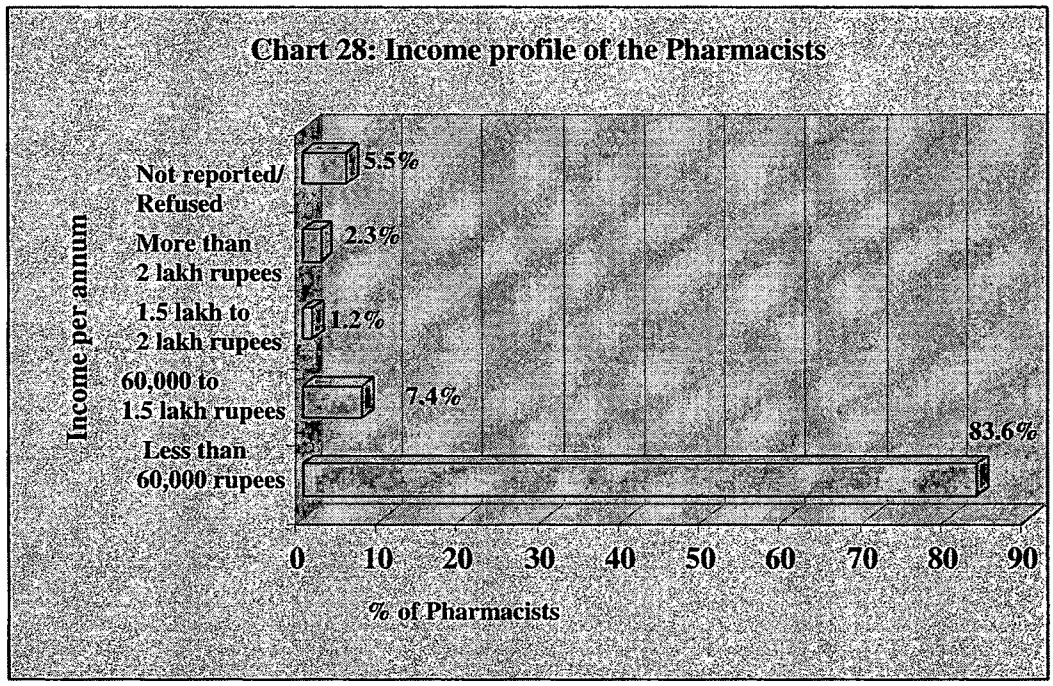
5.25.2 Experience profile of the Pharmacists

Pharmacists were asked about their years of experience in this profession. Across all the selected cities, 31.9% pharmacists were having an experience of 1 to 5 years, 22.8% were having an experience of 6 to 10 years, 22.8% had an experience of 11 to 15 years and 9.4% pharmacists had an experience of 16 to 20 years. There were 13% pharmacists, who responded that they had an experience of more than 21 years. (Appendix III, Table 63)



5.25.3 Income profile of the Pharmacists

Pharmacists were asked about the annual income that they earn from the practice. Across the selected cities, 83.6% pharmacists responded that they had annual earnings of less than Rs. 60,000. 7.4% pharmacists were having an earning between Rs. 60,000 to 1.5 lakh rupees per annum. 1.2% pharmacists had earning between 1.5 lakh to 2 lakh rupees per annum and 2.3% were having earning of more than 2 lakh rupees per annum. There were 5.5% pharmacists who had not responded. (Appendix III, Table 63)



II. Pharmacists response: Bivariate and Multivariate analysis

5.26 ANOVA: ***Four*** composite variables and ***twenty two*** variables i.e. V1 to V22, were used separately for ANOVA. Similarly, ***four*** composite variables and ***twenty two*** variables i.e. V1 to V22 were used separately for Factor analysis.

Four composite variables:

1. Stock selection of medicine brands. (Carthy, et.al, 2000)
2. Sources of information for keeping the medicine brands. (Forster, 1991, Coleman, 2000 and Ryan, 1990)
3. Stock preferences of medicine brands. (Carthy, et.al, 2000)
4. Impact of generic and the branded medicines on the cost of treatment. (DiMasi et. al, 1991, Gönül, et. al, 2001, Windmeijer et.al, 2004)

Twenty two construct variables:

Codes	Description
V1	Normally stock brands, which are prescribed by the doctors nearby my store
V2	Selection of medicine brands is normally done based on the specialty and preferences of the doctor
V3	I visit doctors near-by my store to fix the set of medicine brands; their ranges and their quantity
V4	I do this because of the margin provided, by the drug manufacturer, for storing their brand of medicine
V5	Also keep certain common products, which helps in increasing the frequency of visits of customers to my store
V6	Normally stock medicine brands, looking at their fast or slow moving trends
V7	Preferences of brands by the doctors practicing nearby my store is the major reason to keep specific set of medicine brands
V8	Promotional schemes and trade discounts provided by the manufacturer, helps me in deciding on specific range of medicine brands or alternative brands
V9	Trade margin provided by the drug companies, help me to decide on the set of medicine brands or alternative brands
V10	I regularly refer to the latest index of medicine brands listed in the Chemist Association Circulars to procure the stocks
V11	When I order any specific medicine brand, I compare the costs of different medicine brands that have the same efficiency
V12	I normally look at the frequency of prescription slips that comes and the medicines prescribed, to decide on the stock to procure
V13	I look at the shelf life of specific medicine brand while deciding on the stock level
V14	I also keep substitute brands of the same formulations for a particular disease
V15	I usually carry generic version of the same formulations of branded medicines for a particular disease
V16	I carry generic version of the same formulation due to better margin than the branded medicine
V17	Generic version of the same formulation gives me better sales volume
V18	Gifts, promotional schemes, trade discounts and margins are the major reasons in deciding the final set of medicine brands or its generic version
V19	Patients normally look at the cheaper substitute of medicines for normal illness
V20	Patients normally do seek my advice for the cheaper substitute of medicines, mentioned in the doctor's prescription slip
V21	Patients of affluent class, who regularly visit my store, do not care about the price of medicines while buying for normal illness or based on the doctor's prescription slip
V22	Patients of middle or lower income class, who regularly visit my store, purchase the medicines of lower price for normal illness or based on the doctor's prescription

5.26.1 ANOVA for qualification categories and four composite constructs

It can be seen from the ANOVA (Appendix III, Table 64), that *F statistic* value (2.541) for the first composite variable at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the education level of the pharmacist do have a significant impact on the *stock selection of medicine brands.*

The *F statistic* value (1.685) for the second composite variable at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the education level of the pharmacist do have a significant impact on the *sources of information for keeping the medicine brands.*

The value of *F statistic* (2.605) for the third composite variable at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the education level of the pharmacist do have a significant impact on the *stock preferences of medicine brands.*

For the fourth composite variable, the value of *F statistic* (3.549) is more than the critical value (3.00) at $\alpha = 0.05$ for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the education level of the pharmacist do not have any significant influence on the opinion regarding *generic and the branded medicines impact on the cost of treatment.*

Inference: It can be inferred that education level of the pharmacist i.e. B. Pharma, M. Pharma and other qualifications, do have a significant impact on the *stock selection of medicine brands,* the *sources of information for keeping the medicine brands*, and the *stock preferences of medicine brands.* However, the qualification of the pharmacist does not have any significant influence on the opinion regarding the *impact of generic and the branded medicines on the cost of treatment.* **The implications of the above findings are that the education level of the pharmacist had relatively a significant influence on the understanding of the specialty and preferences of the doctor, stock movement of the specific set of medicine brands, promotional schemes and trade discounts offered on the medicines, cost of treatment and the dynamics in keeping the generic version of the specific set of branded medicines.**

5.26.2 ANOVA for the categories of practicing years and four composite constructs

It can be seen from the ANOVA (Appendix III, Table 65), that *F statistic* value (3.147) for the first composite variable at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the practicing years of the pharmacist do not have any significant impact on the *stock selection of medicine brands.*

The *F statistic* value (3.431) for the second composite variable at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the practicing years of the

pharmacist do not have any significant impact on the *sources of information for keeping the medicine brands.*

The value of *F statistic* (2.862) for the third composite variable at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the practicing years of the pharmacist do not have any significant impact on the *stock preferences of medicine brands.*

For the fourth composite variable, the value of *F statistic* (0.741) is less than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the practicing years of the pharmacist do have a significant influence on the opinion regarding *generic and the branded medicines impact on the cost of treatment.*

Inference: It can be inferred that the practicing years of the pharmacist i.e. 1 to 5 years, 6 to 10 years, 11 to 15 years, 16 to 20 years, and above 20 years, do have a significant impact on the *influence of generic and the branded medicines on the cost of treatment.* However, the practicing years of the pharmacist does not have any significant influence on the *stock selection of medicine brands,* the *sources of information for keeping the medicine brands,* and the *stock preferences of medicine brands.* **The implications of the above findings are that the years of practice in the profession of dispensing and selling of the medicines helps in understanding the efficacy of generic version and implications, of using these as substitute for the branded medicines, on the cost of**

treatment for the patients.

5.26.3 ANOVA for the categories of income level and four composite constructs

It can be seen from the ANOVA (Appendix III, Table 66) that *F statistic* value (1.434) for the first composite variable at $\alpha = 0.05$ is less than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the income level of the pharmacist do have a significant impact on the *stock selection of medicine brands.*

The *F-statistic* value (7.753) for the second composite variable at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the income level of the pharmacist do not have any significant impact on the *sources of information for keeping the medicine brands.*

The value of *F statistic* (13.357) for the third composite variable at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the income level of the pharmacist do not have any significant impact on the *stock preferences of medicine brands.*

For the fourth composite variable, the value of *F statistic* (1.836) is less than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the income level of the

pharmacist do have a significant influence on the opinion regarding *generic and the branded medicines impact on the cost of treatment.*

Inference: It can be inferred that the income level of pharmacist i.e. less than 60,000/annum; 60,000 to 1,50,000/annum; 1,50,000 to 2,00,000/annum and more than 2,00,000/annum, do have a significant impact on the *stock selection of medicine brands* and the *influence of generic and the branded medicines on the cost of treatment.* However, the income level of the pharmacist does not have any significant influence on the *sources of information for keeping the medicine brands*, and the *stock preferences of medicine brands.* **The implications of the above findings are that based on the understanding of the category of diseases handled by the doctor and the preference set of the doctor for a specific disease, a pharmacist can decide on the range of both generic and branded versions of the same formulation with marginally the same efficacy to be kept in the store. But this decision is a function of income level of the pharmacist.**

5.26.4 ANOVA for the categories of education level and twenty two constructs

It can be seen from the ANOVA (Appendix III, Table 67), that *F statistic* value (1.062) for variable V1 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the education level of the pharmacist do have a significant impact on the opinion that *they normally stock brands, which are prescribed by the doctors nearby my store.*

The *F statistic* value (7.114) for the variable V2 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the education level of the pharmacist does not have any significant impact on the opinion that *the selection of medicine brands is normally done based on the specialty and preferences of the doctor.*

The value of *F statistic* (0.042) for the variable V3 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the education level of the pharmacist does have a significant impact on the opinion that *they visit doctors near-by the store to fix the set of medicine brands; their ranges and their quantity.*

For the variable V4, the value of *F statistic* (0.177) is less than the critical value (3.00) at $\alpha = 0.05$ for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the education level of the pharmacist does have a significant impact on the opinion that *they store the specific set of medicine brands due to the margins offered by the drug companies.*

F statistic value (3.793) for variable V5 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the education level of the pharmacist do not have any significant impact on the opinion that *they also keep certain common products, which helps in increasing the frequency of visits of customers to their store.*

The *F statistic* value (1.100) for the variable V6 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the education level of the pharmacist does have a significant impact on the opinion that *they normally stock medicine brands, looking at their fast or slow moving trends.*

The value of *F statistic* (0.589) for the variable V7 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the education level of the pharmacist does have a significant impact on the opinion that *the preferences of brands by the doctors practicing nearby my store is the major reason to keep specific set of medicine brands.*

For the variable V8, the value of *F statistic* (10.656) is more than the critical value (3.00) at $\alpha = 0.05$ for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the education level of the pharmacist does not have any significant impact on the opinion that *the promotional schemes and trade discounts provided by the manufacturer, helps me in deciding on specific range of medicine brands or alternative brands.*

The *F statistic* value (0.058) for variable V9 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the education level of the pharmacist do have a significant impact on the opinion that *the trade margin provided by the drug companies, help me to decide on the set of medicine brands or alternative brands.*

The *F statistic* value (0.948) for the variable V10 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the education level of the pharmacist does have a significant impact on the opinion that *they regularly refer to the latest index of medicine brands listed in the Chemist Association Circulars to procure the stock of medicines.*

The value of *F statistic* (0.331) for the variable V11 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the education level of the pharmacist does have a significant impact on the opinion that *when I order any specific medicine brand, I compare the costs of different medicine brands that have the same efficiency.*

For the variable V12, the value of *F statistic* (3.983) is more than the critical value (3.00) at $\alpha = 0.05$ for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the education level of the pharmacist does not have any significant impact on the opinion that *I normally look at the frequency of prescription slips that comes and the medicines prescribed, to decide on the stock to procure.*

The value of *F statistic* (1.214) for the variable V13 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the education level of the pharmacist does have a significant impact on the opinion that *I look at the shelf life of specific medicine*

brand while deciding on the stock level.

For the variable V14, the value of *F statistic* (1.676) is less than the critical value (3.00) at $\alpha = 0.05$ for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the education level of the pharmacist does have a significant impact on the opinion that *I also keep substitute brands of the same formulations for a particular disease.*

For the variable V15, the value of *F statistic* (5.974) is more than the critical value (3.00) at $\alpha = 0.05$ for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the education level of the pharmacist does not have any significant impact on the opinion that *I usually carry generic version of the same formulations of branded medicines for a particular disease.*

The value of *F statistic* (2.534) for the variable V16 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the education level of the pharmacist does have a significant impact on the opinion that *I carry generic version of the same formulation due to better margin than the branded medicine.*

For the variable V17, the value of *F statistic* (2.318) is less than the critical value (3.00) at $\alpha = 0.05$ for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the education level of the pharmacist does have a significant impact on the opinion that *generic version of the same formulation*

gives me better sales volume.

The value of *F statistic* (1.969) for the variable V18 at $\alpha = 0.05$ is less than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the education level of the pharmacist does have a significant impact on the opinion that *gifts, promotional schemes, trade discounts and margins are the major reasons in deciding the final set of medicine brands or its generic version.*

For the variable V19, the value of *F statistic* (0.867) is less than the critical value (3.00) at $\alpha = 0.05$ for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the education level of the pharmacist does have a significant impact on the opinion that *patients normally look at the cheaper substitute of medicines for normal illness.*

The value of *F statistic* (3.684) for the variable V20 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the education level of the pharmacist does not have any significant impact on the opinion that *patients normally do seek my advice for the cheaper substitute of medicines, mentioned in the doctor's prescription slip.*

For the variable V21, the value of *F statistic* (1.997) is less than the critical value (3.00) at $\alpha = 0.05$ for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the education level of the pharmacist does

have a significant impact on the opinion that *patients of affluent class, who regularly visit my store, do not care about the price of medicines while buying for normal illness or based on the doctor's prescription slip.*

The value of *F statistic* (11.873) for the variable V22 at $\alpha = 0.05$ is more than the critical value (3.00) for 2 and 247 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the education level of the pharmacist does not have any significant impact on the opinion that *patients of middle or lower income class, who regularly visit my store, purchase the medicines of lower price for normal illness or based on the doctor's prescription.*

Inference: It can be inferred that the education level of pharmacist i.e. B. Pharma, M. Pharma, and Others, do have a significant impact on the variables V1 '*normally stock brands, which are prescribed by the doctors nearby my store*', V3 '*I visit doctors near-by my store to fix the set of medicine brands; their ranges and their quantity*', V4 '*I do this because of the margin provided, by the drug manufacturer, for storing their brand of medicine*', V6 '*normally stock medicine brands, looking at their fast or slow moving trends*', V7 '*preferences of brands by the doctors practicing nearby my store is the major reason to keep specific set of medicine brands*', V9 '*trade margin provided by the drug companies, help me to decide on the set of medicine brands or alternative brands*', V10 '*I regularly refer to the latest index of medicine brands listed in the Chemist Association Circulars to procure the stocks*', V11 '*when I order any specific medicine brand, I compare the costs of different medicine brands that have the same efficiency*', V13 '*I look at the shelf life of specific medicine brand while deciding on the stock level*', V14 '*I*

also keep substitute brands of the same formulations for a particular disease', V16 '*I carry generic version of the same formulation due to better margin than the branded medicine*', V17 '*generic version of the same formulation gives me better sales volume*', V18 '*gifts, promotional schemes, trade discounts and margins are the major reasons in deciding the final set of medicine brands or its generic version*', V19 '*patients normally look at the cheaper substitute of medicines for normal illness*' and V21 '*patients of affluent class, who regularly visit my store, do not care about the price of medicines while buying for normal illness or based on the doctor's prescription slip*'. However, the education level of the pharmacist does not have any significant influence on the variables V2 '*selection of medicine brands is normally done based on the specialty and preferences of the doctor*', V5 '*also keep certain common products, which helps in increasing the frequency of visits of customers to my store*', V8 '*promotional schemes and trade discounts provided by the manufacturer, helps me in deciding on specific range of medicine brands or alternative brands*', V12 '*I normally look at the frequency of prescription slips that comes and the medicines prescribed, to decide on the stock to procure*', V15 '*I usually carry generic version of the same formulations of branded medicines for a particular disease*', V20 '*patients normally do seek my advice for the cheaper substitute of medicines, mentioned in the doctor's prescription slip*' and V22 '*patients of middle or lower income class, who regularly visit my store, purchase the medicines of lower price for normal illness or based on the doctor's prescription*'. **The implications of the above findings are that higher the education better is the understanding of the pharmacist about the rationale of medicine brands prescribed by the doctor for a specific disease. Pharmacists with relatively better education can**

more effectively track their stock of medicine brands based on the margins offered, fast and slow moving trends. Pharmacists with higher education are more likely to refer the index of medicine brands listed in the Chemist Association Circulars to procure the stocks. Pharmacists with better education are more likely to look at the shelf life of specific medicine brands while deciding on the stock levels. Pharmacists with better education are more likely to carry an effect range of generic version of the formulation to offer medicine range, for a specific disease, to the patients. Pharmacists with better education are more likely to get patients who may seek their advice for a generic version or cheaper substitute of medicine brands for normal illness.

5.26.5 ANOVA for the categories of years of experience and twenty two constructs

It can be seen from the ANOVA (Appendix III, Table 68), that *F statistic* value (1.963) for variable V1 at $\alpha = 0.05$ is less than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the years of experience of the pharmacist do have a significant impact on the opinion that *they normally stock brands, which are prescribed by the doctors nearby my store.*

The *F statistic* value (3.119) for the variable V2 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the years of experience of the pharmacist do not have any significant impact on the opinion that *the selection of medicine brands is*

normally done based on the specialty and preferences of the doctor.

The value of *F statistic* (6.916) for the variable V3 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the years of experience of the pharmacist does not have any significant impact on the opinion that *they visit doctors near-by the store to fix the set of medicine brands; their ranges and their quantity.*

For the variable V4, the value of *F statistic* (5.397) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the years of experience of the pharmacist do not have any significant impact on the opinion that *they store the specific set of medicine brands due to the margins offered by the drug companies.*

F statistic value (0.237) for variable V5 at $\alpha = 0.05$ is less than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the years of experience of the pharmacist do have a significant impact on the opinion that *they also keep certain common products, which helps in increasing the frequency of visits of customers to their store.*

The *F statistic* value (1.530) for the variable V6 at $\alpha = 0.05$ is less than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the years of experience of the pharmacist does have a significant impact on the opinion that *they normally stock medicine brands, looking at their fast or slow moving trends.*

The value of *F statistic* (2.746) for the variable V7 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the years of experience of the pharmacist do not have any significant impact on the opinion that *the preferences of brands by the doctors practicing nearby my store is the major reason to keep specific set of medicine brands.*

For the variable V8, the value of *F statistic* (4.967) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the years of experience of the pharmacist does not have any significant impact on the opinion that *the promotional schemes and trade discounts provided by the manufacturer, helps me in deciding on specific range of medicine brands or alternative brands.*

The *F statistic* value (2.797) for variable V9 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the years of experience of the pharmacist do not have any significant impact on the opinion that *the trade margin provided by the drug companies helps me to decide on the set of medicine brands or alternative brands.*

The *F statistic* value (1.033) for the variable V10 at $\alpha = 0.05$ is less than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the years of experience of the pharmacist does have a significant impact on the opinion that *they regularly refer to the latest index*

of medicine brands listed in the Chemist Association Circulars to procure the stock of medicines.

The value of *F statistic* (0.790) for the variable V11 at $\alpha = 0.05$ is less than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the years of experience of the pharmacist does have a significant impact on the opinion that *they, while buying, normally compare the cost of different medicine brands that have the same efficacy.*

For the variable V12, the value of *F statistic* (4.551) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the years of experience of the pharmacist does not have any significant impact on the opinion that *they normally look at the frequency of prescription slips that comes to their store counter and the medicines prescribed, to decide on the stock of medicines to procure.*

The value of *F statistic* (1.971) for the variable V13 at $\alpha = 0.05$ is less than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the years of experience of the pharmacist does have a significant impact on the opinion that *they look at the shelf life of specific medicine brand while deciding on the stock level.*

For the variable V14, the value of *F statistic* (8.631) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category

means are equal is rejected. This means that the years of experience of the pharmacist does not have any significant impact on the opinion that *they also keep substitute brands of the same formulations for a particular disease.*

For the variable V15, the value of *F statistic* (1.302) is less than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the years of experience of the pharmacist does have a significant impact on the opinion that *they usually carry generic version of the same formulations of branded medicines for a particular disease.*

The value of *F statistic* (2.146) for the variable V16 at $\alpha = 0.05$ is less than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the years of experience of the pharmacist does have a significant impact on the opinion that *they carry generic version of the same formulation due to better margin than the branded medicine.*

For the variable V17, the value of *F statistic* (2.690) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the years of experience of the pharmacist do not have any significant impact on the opinion that *generic version of the same formulation gives me better sales volume.*

The value of *F statistic* (1.672) for the variable V18 at $\alpha = 0.05$ is less than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category

means are equal is accepted. This means that the years of experience of the pharmacist do have a significant impact on the opinion that *gifts, promotional schemes, trade discounts and margins are the major reasons in deciding the final set of medicine brands or its generic version.*

For the variable V19, the value of *F statistic* (1.113) is less than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the years of experience of the pharmacist do have a significant impact on the opinion that *the patients normally look at the cheaper substitute of medicines for normal illness.*

The value of *F statistic* (1.775) for the variable V20 at $\alpha = 0.05$ is less than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the years of experience of the pharmacist do have a significant impact on the opinion that *the patients normally do seek my advice for the cheaper substitute of medicines, mentioned in the doctor's prescription slip.*

For the variable V21, the value of *F statistic* (4.598) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the years of experience of the pharmacist do not have any significant impact on the opinion that *patients of affluent class, who regularly visit my store, do not care about the price of medicines while buying for normal illness or based on the doctor's prescription slip.*

The value of *F statistic* (0.353) for the variable V22 at $\alpha = 0.05$ is less than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the years of experience of the pharmacist do have a significant impact on the opinion that *patients of middle or lower income class, who regularly visit my store, purchase the medicines of lower price for normal illness or based on the doctor's prescription.*

Inference: It can be inferred that the years of experience of pharmacist i.e. 1 to 5 years, 6 to 10 years, 11 to 15 years, 16 to 20 years, and above 20 years, do have a significant impact on the variables V1 '*normally stock brands, which are prescribed by the doctors nearby my store*', V5 '*also keep certain common products, which helps in increasing the frequency of visits of customers to my store*', V6 '*normally stock medicine brands, looking at their fast or slow moving trends*', V10 '*I regularly refer to the latest index of medicine brands listed in the Chemist Association Circulars to procure the stocks*', V11 '*when I order any specific medicine brand, I compare the costs of different medicine brands that have the same efficiency*', V13 '*I look at the shelf life of specific medicine brand while deciding on the stock level*', V15 '*I usually carry generic version of the same formulations of branded medicines for a particular disease*', V16 '*I carry generic version of the same formulation due to better margin than the branded medicine*', V18 '*gifts, promotional schemes, trade discounts and margins are the major reasons in deciding the final set of medicine brands or its generic version*', V19 '*patients normally look at the cheaper substitute of medicines for normal illness*', V20 '*patients normally do seek my advice for the cheaper substitute of medicines, mentioned in the doctor's prescription slip*' and V22 '*patients of middle or lower income class, who regularly visit my store,*

purchase the medicines of lower price for normal illness or based on the doctor's prescription'. However, the years of experience of the pharmacist does not have any significant influence on the variables V2 '*selection of medicine brands is normally done based on the specialty and preferences of the doctor*', V3 '*I visit doctors near-by my store to fix the set of medicine brands; their ranges and their quantity*', V4 '*I do this because of the margin provided, by the drug manufacturer, for storing their brand of medicine*', V7 '*preferences of brands by the doctors practicing nearby my store is the major reason to keep specific set of medicine brands*', V8 '*promotional schemes and trade discounts provided by the manufacturer, helps me in deciding on specific range of medicine brands or alternative brands*', V9 '*trade margin provided by the drug companies, help me to decide on the set of medicine brands or alternative brands*', V12 '*I normally look at the frequency of prescription slips that comes and the medicines prescribed, to decide on the stock to procure*', V14 '*I also keep substitute brands of the same formulations for a particular disease*', V17 '*generic version of the same formulation gives me better sales volume*', and V21 '*patients of affluent class, who regularly visit my store, do not care about the price of medicines while buying for normal illness or based on the doctor's prescription slip*'. **The implications of the above findings are that the pharmacists with relatively lesser experience in the profession, normally stock only those medicine brands which are most frequently being prescribed by the doctors nearby their store. Pharmacists with relatively more experience, keep larger range of drug and non drug items to increasing the frequency of visits of the patients to their stores. Pharmacists, who are having relatively more experience, regularly refer to the latest index of Chemist Association**

circulars for procuring the medicine brands. Pharmacists with higher experience are relatively more cautious in tracking the fast or slow moving trends of the medicine brands. Pharmacists with higher experience are relatively more cautious in comparing the cost and efficacy of the medicine brands, while procuring the set of medicines for a specific disease. Pharmacists with relatively higher experience look more cautiously on the shelf life of specific medicine brand while deciding the stock level. Pharmacists with relatively higher experience, keep comparatively larger range of generic version of the same formulation prescribed by the doctors. Pharmacists with lesser experience may get gifts, promotional offers, trade discounts and margins relatively less than the pharmacists with higher experience. Patients may seek advice for the cheaper substitutes from the pharmacists with relatively higher experience. Pharmacists with relatively lesser experience may find comparatively more patients of middle or lower income class, purchasing mostly cheaper medicines and for normal illness.

5.26.6 ANOVA for the income categories and twenty two constructs

It can be seen from the ANOVA (Appendix III, Table 69), that *F statistic* value (2.281) for variable V1 at $\alpha = 0.05$ is less than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the income of the pharmacist do have a significant impact on the opinion that *they normally stock brands, which are prescribed by the doctors nearby my store.*

The *F statistic* value (2.361) for the variable V2 at $\alpha = 0.05$ is less than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category

means are equal is accepted. This means that the income of the pharmacist do have a significant impact on the opinion that *the selection of medicine brands is normally done based on the specialty and preferences of the doctor.*

The value of *F statistic* (1.620) for the variable V3 at $\alpha = 0.05$ is less than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the income of the pharmacist does have a significant impact on the opinion that *they visit doctors near-by the store to fix the set of medicine brands; their ranges and their quantity.*

For the variable V4, the value of *F statistic* (1.148) is less than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the income of the pharmacist do have a significant impact on the opinion that *they store the specific set of medicine brands due to the margins offered by the drug companies.*

F statistic value (2.883) for variable V5 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the income of the pharmacist do not have any significant impact on the opinion that *they also keep certain common products, which helps in increasing the frequency of visits of customers to their store.*

The *F statistic* value (2.927) for the variable V6 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category

means are equal is rejected. This means that the income of the pharmacist does not have any significant impact on the opinion that *they normally stock medicine brands, looking at their fast or slow moving trends.*

The value of *F statistic* (2.829) for the variable V7 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the income of the pharmacist do not have any significant impact on the opinion that *the preferences of brands by the doctors practicing nearby my store is the major reason to keep specific set of medicine brands.*

For the variable V8, the value of *F statistic* (5.452) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the income of the pharmacist does not have any significant impact on the opinion that *the promotional schemes and trade discounts provided by the manufacturer, helps me in deciding on specific range of medicine brands or alternative brands.*

The *F statistic* value (2.555) for variable V9 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the income of the pharmacist do not have any significant impact on the opinion that *the trade margin provided by the drug companies helps me to decide on the set of medicine brands or alternative brands.*

The *F statistic* value (3.157) for the variable V10 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category

means are equal is rejected. This means that the income of the pharmacist does not have any significant impact on the opinion that *they regularly refer to the latest index of medicine brands listed in the Chemist Association Circulars to procure the stock of medicines.*

The value of *F statistic* (11.751) for the variable V11 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the income of the pharmacist does not have any significant impact on the opinion that *they, while buying, normally compare the cost of different medicine brands that have the same efficacy.*

For the variable V12, the value of *F statistic* (3.769) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the income of the pharmacist does not have any significant impact on the opinion that *they normally look at the frequency of prescription slips that comes to their store counter and the medicines prescribed, to decide on the stock of medicines to procure.*

The value of *F statistic* (12.949) for the variable V13 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the income of the pharmacist does not have any significant impact on the opinion that *they look at the shelf life of specific medicine brand while deciding on the stock level.*

For the variable V14, the value of *F statistic* (8.242) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the income of the pharmacist does not have any significant impact on the opinion that *they also keep substitute brands of the same formulations for a particular disease.*

For the variable V15, the value of *F statistic* (7.874) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the income of the pharmacist does not have any significant impact on the opinion that *they usually carry generic version of the same formulations of branded medicines for a particular disease.*

The value of *F statistic* (8.709) for the variable V16 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the income of the pharmacist does not have any significant impact on the opinion that *they carry generic version of the same formulation due to better margin than the branded medicine.*

For the variable V17, the value of *F statistic* (4.030) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the income of the pharmacist does not have any significant impact on the opinion that *generic version of the same formulation gives me better sales volume.*

The value of *F statistic* (9.271) for the variable V18 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the income of the pharmacist does not have any significant impact on the opinion that *gifts, promotional schemes, trade discounts and margins are the major reasons in deciding the final set of medicine brands or its generic version.*

For the variable V19, the value of *F statistic* (1.555) is less than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the income of the pharmacist do have a significant impact on the opinion that *patients normally look at the cheaper substitute of medicines for normal illness.*

The value of *F statistic* (2.144) for the variable V20 at $\alpha = 0.05$ is less than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the income of the pharmacist do have a significant impact on the opinion that *patients normally do seek my advice for the cheaper substitute of medicines, mentioned in the doctor's prescription slip.*

For the variable V21, the value of *F statistic* (2.321) is less than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the income of the pharmacist do have a significant impact on the opinion that *patients of affluent class, who regularly visit my store, do not care about the price of medicines while buying for normal illness or based*

on the doctor's prescription slip.

The value of *F statistic* (1.999) for the variable V22 at $\alpha = 0.05$ is less than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the income of the pharmacist do have a significant impact on the opinion *patients of middle or lower income class, who regularly visit my store, purchase the medicines of lower price for normal illness or based on the doctor's prescription.*

Inference: It can be inferred that the income level of pharmacist i.e. less than 60,000 per annum, 60,000 to 1.5 lakhs per annum, 1.5 lakhs to 2 lakhs per annum, and above 2 lakhs per annum, do have a significant impact on the variables V1 '*normally stock brands, which are prescribed by the doctors nearby my store*', V2 '*selection of medicine brands is normally done based on the specialty and preferences of the doctor*', V3 '*I visit doctors near-by my store to fix the set of medicine brands; their ranges and their quantity*', V4 '*I do this because of the margin provided, by the drug manufacturer, for storing their brand of medicine*', V19 '*patients normally look at the cheaper substitute of medicines for normal illness*', V20 '*patients normally do seek my advice for the cheaper substitute of medicines, mentioned in the doctor's prescription slip*', V21 '*patients of affluent class, who regularly visit my store, do not care about the price of medicines while buying for normal illness or based on the doctor's prescription slip*' and V22 '*patients of middle or lower income class, who regularly visit my store, purchase the medicines of lower price for normal illness or based on the doctor's prescription*'. However, the income level of the pharmacist does not have any significant influence on the variables V5 '*also keep*

certain common products, which helps in increasing the frequency of visits of customers to my store', V6 '*normally stock medicine brands, looking at their fast or slow moving trends*', V7 '*preferences of brands by the doctors practicing nearby my store is the major reason to keep specific set of medicine brands*', V8 '*promotional schemes and trade discounts provided by the manufacturer, helps me in deciding on specific range of medicine brands or alternative brands*', V9 '*trade margin provided by the drug companies, help me to decide on the set of medicine brands or alternative brands*', V10 '*I regularly refer to the latest index of medicine brands listed in the Chemist Association Circulars to procure the stocks*', V11 '*when I order any specific medicine brand, I compare the costs of different medicine brands that have the same efficiency*', V12 '*I normally look at the frequency of prescription slips that comes and the medicines prescribed, to decide on the stock to procure*', V13 '*I look at the shelf life of specific medicine brand while deciding on the stock level*', V14 '*I also keep substitute brands of the same formulations for a particular disease*', V15 '*I usually carry generic version of the same formulations of branded medicines for a particular disease*', V16 '*I carry generic version of the same formulation due to better margin than the branded medicine*', V17 '*generic version of the same formulation gives me better sales volume*' and V18 '*gifts, promotional schemes, trade discounts and margins are the major reasons in deciding the final set of medicine brands or its generic version*'. **The implications of the above findings are that the pharmacists with relatively lower income are cautious while stocking the medicine brands. They normally follow the prescription trends of the doctor nearby their stores to fix the medicine brands and based on the specialty and preferences of the doctor. Pharmacists with relatively lower income**

will tend to store those medicine brands which offer them comparatively better margins. Pharmacists with lower income may find relatively more patients who seek their advice and normally look for the cheaper substitute of medicine brands for normal illness. Pharmacists with relatively higher income may find larger proportion of patients from affluent class, who do not care about the prescription cost. Pharmacists with relatively lower income may find larger proportion of patients from middle or lower income class, who seek their advice for the medicine brands with lower price as a substitute to the prescribed one.

5.27 Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.777	*.769*	*22*

The *Cronbach's alpha* or *coefficient alpha* value (0.777) shows fairly strong internal consistency reliability of the 22 scaled items used to construct the pharmacist's beliefs.

Inference: The scaled items assessed through the Cronbach's alpha are found to be fairly consistent and reliable.

5.28 Factor Analysis

Seven composite variables and ***twenty two*** construct variables i.e. V1 to V22, were used separately for Factor analysis. These two separate variable sets used to test factor analysis, correlation and descriptive analysis. The details of the selected variables are mentioned below:

Seven **composite variables:**

Variable 1: Stock selection of medicine brands

Variable 2: Sources of information for keeping medicine brands

Variable 3: Stock preferences of medicine brands

Variable 4: Impact of generic and branded version of medicine on cost of treatment

Variable 5: Qualification of the pharmacist

Variable 6: Years of practice of the pharmacist

Variable 7: Income of the pharmacist

Twenty two construct variables:

Codes	Description
V1	Normally stock brands, which are prescribed by the doctors nearby my store
V2	Selection of medicine brands is normally done based on the specialty and preferences of the doctor
V3	I visit doctors near-by my store to fix the set of medicine brands, their ranges and quantity
V4	I do this because of the margin provided by the drug manufacturer for storing their brand of medicine
V5	Also keep certain common products which helps in increasing the frequency of visits of customers to my store
V6	Normally stock medicine brands, looking at their fast or slow moving trends
V7	Preferences of brands by the doctors practicing nearby my store is the major reason to keep specific set of medicine brands
V8	Promotional schemes and trade discounts provided by the manufacturer helps me in deciding on specific range of medicine brands or alternative brands
V9	Trade margin provided by the drug companies help me to decide on the set of medicine brands or alternative brands
V10	I regularly refer to the latest index of medicine brands listed in the Chemist Association Circulars to procure the stocks
V11	When I order any specific medicine brand, I compare the costs of different medicine brands that have the same efficiency
V12	I normally look at the frequency of prescription slips that comes and the medicines prescribed, to decide on the stock to procure
V13	I look at the shelf life of specific medicine brand while deciding on the stock level
V14	I also keep substitute brands of the same formulations for a particular disease
V15	I usually carry generic version of the same formulations of branded medicines for a particular disease
V16	I carry generic version of the same formulation due to better margin than the branded medicine
V17	Generic version of the same formulation gives me better sales volume
V18	Gifts, promotional schemes, trade discounts and margins are the major reasons in deciding the final set of medicine brands or its generic version
V19	Patients normally look at the cheaper substitute of medicines for normal illness
V20	Patients normally do seek my advice for the cheaper substitute of medicines mentioned in the doctor's prescription slip
V21	Patients of affluent class, who regularly visit my store, do not care about the price of medicines while buying for normal illness or based on the doctor's prescription slip
V22	Patients of middle or lower income class, who regularly visit my store, purchase the medicines of lower price for normal illness or based on the doctor's prescription

5.28.1 Factor Analysis for seven composite variables

It can be seen from the *Correlation matrix*, the *stock preferences of medicine brands* is relatively more influenced by *impact of generic and branded version of medicine on the cost of treatment* as relatively high correlated exists between them (0.429).

Communalities for all the *seven composite variables* were one and thus were inserted in the diagonals of the correlation matrix for further analysis.

Initial Eigenvalues of the *three factors* explaining the total variance are more than one; therefore all the three factors are included in the final analysis. *Factor 1* account for a variance of 1.878, which is 26.824% of the total variance explained by the three factors. Similarly, *Factor 2* accounts for a variance of 1.252 and explaining 17.891% of total variance. *Factor 3* accounts for a variance of 1.090 and explaining 15.568% of total variance. Thus, the *three factors* combined together explain *60.283%* of total variance, which is relatively significant.

Rotated component matrix shows that ***Factor 1*** has relatively high coefficients for variables '*stock preferences of medicine brands*' (0.829) and '*impact of generic and branded version of medicine on the cost of treatment*' (0.701). Therefore this factor is labeled as '**medicine brand preferences**'. ***Factor 2*** has relatively high factor loading on the variable '*stock selection of medicine brands*' (0.591), '*years of practice of the pharmacist*' (0.490) and '*income of the pharmacist*' (0.464). Thus, this factor is labeled as '**range of medicine brands stock**'. Similarly, ***Factor 3*** has relatively high coefficients for the variable '*sources of information for keeping the medicine brands*' (0.791) and a

slight correlation with the variable '*qualification of the pharmacist*' (0.106). Thus, this factor is labeled as **'medicine brand inquiries'**. Now, these *three factors* will be further verified, by including all the *twenty two construct* variables, which are there in the belief constructs in the questionnaire, and factor analysis, will be again executed to find the final factors.

Correlation Matrix

		Stock selection of medicine brands	Sources of information for keeping medicine brands	Stock preferences of medicine brands	Impact of generic and branded version of medicine on cost of treatment	Qualification of the pharmacist	Years of practice of the pharmacist	Income of the pharmacist
Correlation	Stock selection of medicine brands	1.000	.105	.351	.311	-.139	.121	-.023
	Sources of information for keeping medicine brands	.105	1.000	.180	.087	.080	-.123	-.037
	Stock preferences of medicine brands	.351	.180	1.000	.429	.068	-.157	-.366
	Impact of generic and branded version of medicine on cost of treatment	.311	.087	.429	1.000	.031	-.102	-.153
	Qualification of the pharmacist	-.139	.080	.068	.031	1.000	-.097	-.086
	Year of practice of the pharmacist	.121	-.123	-.157	-.102	-.097	1.000	.054
	Income of the pharmacist	-.023	-.037	-.366	-.153	-.086	.054	1.000
Sig. (1-tailed)	Stock selection of medicine brands		.048	.000	.000	.014	.028	.357
	Sources of information for keeping medicine brands	.048		.002	.086	.103	.026	.280
	Stock preferences of medicine brands	.000	.002		.000	.141	.007	.000
	Impact of generic and branded version of medicine on cost of treatment	.000	.086	.000		.313	.054	.008
	Qualification of the pharmacist	.014	.103	.141	.313		.064	.089
	Years of practice of the pharmacist	.028	.026	.007	.054	.064		.199
	Income of the pharmacist	.357	.280	.000	.008	.089	.199	

Communalities

	Initial	Extraction
Stock selection of medicine brands	1.000	.699
Sources of information for keeping medicine brands	1.000	.649
Stock preferences of medicine brands	1.000	.713
Impact of generic and branded version of medicine on cost of treatment	1.000	.519
Qualification of the pharmacist	1.000	.442
Years of practice of the pharmacist	1.000	.506
Income of the pharmacist	1.000	.691

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.937	27.672	27.672	1.937	27.672	27.672	1.878	26.824	26.824
2	1.277	18.245	45.917	1.277	18.245	45.917	1.252	17.891	44.715
3	1.006	14.366	60.283	1.006	14.366	60.283	1.090	15.568	60.283
4	.899	12.848	73.131						
5	.837	11.950	85.081						
6	.598	8.539	93.620						
7	.447	6.380	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix (a)

	Component		
	1	2	3
Stock selection of medicine brands	.577	.591	.131
Sources of information for keeping medicine brands	.148	-.023	.791
Stock preferences of medicine brands	.829	-.103	.121
Impact of generic and branded version of medicine on cost of treatment	.701	.085	.146
Qualification of the pharmacist	.036	-.655	.106
Years of practice of the pharmacist	-.072	.490	-.511
Income of the pharmacist	-.581	.464	.372

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 7 iterations.

5.28.2 Factor Analysis for twenty two construct variables

The Factor Analysis was again run on *twenty two* construct variables, which are mentioned above the analysis, to know the overall factors that emerge and contributes to the pharmacist behaviour.

It can be seen from the correlation matrix, that variables V3 '*I visit doctors near-by my store to fix the set of medicine brands, their ranges and quantity*' and V4 '*I do this because of the margin provided by the drug manufacturer for storing their brand of medicine*' have relatively high correlation (0.541). The construct variables V7 '*preferences of brands by the doctors practicing nearby my store is the major reason to keep specific set of medicine brands*' and V12 '*I normally look at the frequency of prescription slips that comes and the medicines prescribed, to decide on the stock to procure*' are showing high correlation (0.433). Similarly, the variables V8 '*promotional schemes and trade discounts provided by the manufacturer helps me in deciding on specific range of medicine brands or alternative brands*' and V9 '*trade margin provided by the drug companies help me to decide on the set of medicine brands or alternative brands*' are showing high correlation (0.576). Construct variable V16 '*I carry generic version of the same formulation due to better margin than the branded medicine*' has relatively high correlation with the variables V15 '*I usually carry generic version of the same formulations of branded medicines for a particular disease*' (0.689) and V17 '*generic version of the same formulation gives me better sales volume*' (0.686).

Communalities for all the twenty two construct variables were one and thus were inserted in the diagonals of the correlation matrix for further analysis.

Initial Eigenvalues of the *seven factors* explaining the total variance are more than one; therefore all the *seven factors* are included in the final analysis. ***Factor 1*** account for a variance of 3.597, which is 16.349% of the total variance explained by the seven factors. ***Factor 2*** accounts for a variance of 2.780 and explaining 12.637% of total variance. ***Factor 3*** accounts for a variance of 2.391, which is explaining 10.867% of the total variance. ***Factor 4*** accounts for a variance of 1.649, which is 7.497% of the total variance. ***Factor 5*** accounts for a variance of 1.527, which is 6.941% of the total variance. ***Factor 6*** accounts for a variance of 1.512, which is explaining 6.875% of the total variance and ***Factor 7*** accounts for a variance of 1.478, which is 6.720% of the total variance. Thus, these seven factors combined together explain *67.884%* of total variance, which is relatively significant.

Rotated component matrix show that factor loadings for ***Factor 1*** has relatively high coefficients for variables V1 '*normally stock brands which are prescribed by the doctors nearby my store*' (0.556), V14 '*I also keep substitute brands of the same formulations for a particular disease*' (0.611), V15 '*I usually carry generic version of the same formulations of branded medicines for a particular disease*' (0.754), V16 '*I carry generic version of the same formulation due to better margin than the branded medicine*' (0.848), V17 '*generic version of the same formulation gives me better sales volume*' (0.839) and V18 '*gifts, promotional schemes, trade discounts and margins are the major reasons in deciding the final set of medicine brands or its generic version*' (0.690). Thus, this factor is labeled as '**range of medicines stock**'. ***Factor 2*** is relatively correlated high with variables V3 '*I visit doctors near-by my store to fix the set of medicine brands, their ranges and quantity*' (0.452), V19 '*patients normally look at the cheaper substitute of*

medicines for normal illness' (0.891), V20 '*patients normally do seek my advice for the cheaper substitute of medicines mentioned in the doctor's prescription slip*' (0.839) and V22 '*patients of middle or lower income class, who regularly visit my store, purchase the medicines of lower price for normal illness or based on the doctor's prescription*' (0.754). Therefore, this factor is labeled as '**cost of treatment**'. Similarly, ***Factor 3*** has relatively high factor loadings on the variables V2 '*selection of medicine brands is normally done based on the specialty and preferences of the doctor*' (0.610), V7 '*preferences of brands by the doctors practicing nearby my store is the major reason to keep specific set of medicine brands*' (0.641) and V12 '*I normally look at the frequency of prescription slips that comes and the medicines prescribed, to decide on the stock to procure*' (0.740). Thus, this factor is labeled as '**preference in medicine brands**'. ***Factor 4*** has relatively high coefficients for variables V8 '*promotional schemes and trade discounts provided by the manufacturer helps me in deciding on specific range of medicine brands or alternative brands*' (0.816) and V9 '*trade margin provided by the drug companies help me to decide on the set of medicine brands or alternative brands*' (0.908). Thus, this factor is labeled as '**medicine brand promotion**'. ***Factor 5*** has relatively high coefficients for variables V4 '*I do this because of the margin provided by the drug manufacturer for storing their brand of medicine*' (0.174), V5 '*also keep certain common products which helps in increasing the frequency of visits of customers to my store*' (0.736) and V6 '*normally stock medicine brands, looking at their fast or slow moving trends*' (0.678). Therefore, this factor is labeled as '**economy in keeping the medicine brands**'. ***Factor 6*** has relatively high factor loadings on the variables V13 '*I look at the shelf life of specific medicine brand while deciding on the stock level*' (0.449)

and V21 '*patients of affluent class, who regularly visit my store, do not care about the price of medicines while buying for normal illness or based on the doctor's prescription slip*' (0.785). Thus, this factor is labeled as '**stock level of medicine brands**'. ***Factor 7*** has relatively high coefficients for variables V10 '*I regularly refer to the latest index of medicine brands listed in the Chemist Association Circulars to procure the stocks*' (0.553) and V11 '*when I order any specific medicine brand, I compare the costs of different medicine brands that have the same efficiency*' (0.747). Therefore, this factor is labeled as '**rationale for keeping the medicine brands**'.

Inference:

Out of the original *twenty two constructs* variables, *seven factors* were extracted which were named as:

1. Range of medicines stock.
2. Cost of treatment.
3. Preference in medicine brands.
4. Medicine brand promotion.
5. Economy in keeping the medicine brands.
6. Stock level of medicine brands.
7. Rationale for keeping the medicine brands.

Pharmacists normally keep substitute medicines or generic version of the original formulation with the same efficacy. They do this to carry a range of medicines for a specific disease. These generic medicines fetch better margins and sales volume to the pharmacist. They prefer those medicine brands which offer gifts, promotional schemes,

trade discounts and relatively better margins while deciding on the range of medicine brands for a specific disease.

Pharmacists meet the doctors, who sits near-by their store, to fix a set of medicine brands for a specific disease. Patients also, sometimes, do ask for a generic version of the prescribed medicine as they are relatively cheaper. Thus, pharmacists carry the regular prescribed medicines and their generic version. Pharmacists, while deciding on the purchase of the set of medicine brands for a specific disease consider the specialty of the doctor, the preferences of doctor, the frequency of prescription slips that comes to their store counter and the medicines prescribed. Pharmacists normally keep certain common products, apart from medicine brands, which help in increasing the frequency of visits of customers to their store. They carry the stock of medicine brands and non drug items looking at their fast or slow moving trends. The stock level of the medicine brands for a specific disease is decided primarily based on their shelf life. Pharmacists regularly refer to the latest index of medicine brands listed in the Chemist Association Circulars to procure their stock of medicine brands for a specific disease.

Correlation Matrix

		V1	V2	V3	V4	V5	V6	V7	V8	V9	V10
Correlation	V1	1	0.324	0.013	-0.02	0.151	0.296	0.049	-0.12	-0.14	0.16
	V2	0.324	1	-0.16	-0.28	0.165	0.223	0.311	-0.25	0.072	0.289
	V3	0.013	-0.16	1	0.541	0.015	0.039	-0.07	0.142	0.113	-0.14
	V4	-0.02	-0.28	0.541	1	-0.07	-0.1	-0.21	0.108	-0.01	-0.24
	V5	0.151	0.165	0.015	-0.07	1	0.324	0.205	-0.11	0.111	0.052
	V6	0.296	0.223	0.039	-0.1	0.324	1	0.219	0.052	-0.03	0.329
	V7	0.049	0.311	-0.07	-0.21	0.205	0.219	1	-0.09	0.104	0.258
	V8	-0.12	-0.25	0.142	0.108	-0.11	0.052	-0.09	1	0.576	0.15
	V9	-0.14	0.072	0.113	-0.01	0.111	-0.03	0.104	0.576	1	0.036
	V10	0.16	0.289	-0.14	-0.24	0.052	0.329	0.258	0.15	0.036	1
	V11	0.032	0.035	0.199	0.092	-0.16	0.133	0.026	0.175	-0.04	0.184
	V12	0.089	0.341	-0.15	-0.27	0.127	0.15	0.433	-0.13	0.07	0.424
	V13	0.247	0.134	0.022	-0.09	0.24	0.181	0.133	0.005	0.047	0.226
	V14	0.25	0.178	-0.01	0.034	0.132	0.283	0.148	0.008	0.011	0.146
	V15	0.332	0.149	0.091	-0.03	0.132	0.268	0.066	-0.08	-0.05	0.075
	V16	0.516	0.152	0.088	0.066	0.211	0.333	0.132	-0.1	-0.05	0.11
	V17	0.414	0.129	0.145	0.211	0.085	0.218	0.053	-0.12	-0.01	0.02
	V18	0.335	0.217	0.238	0.106	-0.06	0.083	-0.08	-0.21	-0.07	0.006
	V19	0.059	0.157	0.303	0.053	0.022	0.189	0.34	-0.1	-0	0.086
	V20	0.037	0.101	0.372	0.153	0.014	0.062	0.194	-0.08	0.006	0.017
	V21	0.202	0.03	-0.18	-0.26	0.106	0.091	-0.02	-0.03	0.011	0.209
	V22	0.116	0.142	0.238	0.078	0.223	0.168	0.13	-0.21	-0.04	-0.17
Sig. (1-tailed)	V1		0	0.417	0.369	0.008	0	0.218	0.031	0.014	0.006
	V2	0		0.005	0	0.005	0	0	0	0.129	0
	V3	0.417	0.005		0	0.406	0.269	0.133	0.012	0.037	0.013
	V4	0.369	0	0		0.126	0.052	0.001	0.044	0.463	0
	V5	0.008	0.005	0.406	0.126		0	0.001	0.046	0.04	0.208
	V6	0	0	0.269	0.052	0		0	0.206	0.318	0
	V7	0.218	0	0.133	0.001	0.001	0		0.083	0.05	0
	V8	0.031	0	0.012	0.044	0.046	0.206	0.083		0	0.009
	V9	0.014	0.129	0.037	0.463	0.04	0.318	0.05	0		0.285
	V10	0.006	0	0.013	0	0.208	0	0	0.009	0.285	
	V11	0.306	0.289	0.001	0.073	0.007	0.018	0.344	0.003	0.276	0.002
	V12	0.081	0	0.009	0	0.023	0.009	0	0.02	0.135	0
	V13	0	0.017	0.366	0.078	0	0.002	0.018	0.471	0.229	0
	V14	0	0.002	0.467	0.299	0.018	0	0.01	0.447	0.434	0.01
	V15	0	0.009	0.075	0.307	0.019	0	0.151	0.116	0.231	0.119
	V16	0	0.008	0.083	0.15	0	0	0.019	0.067	0.213	0.041
	V17	0	0.021	0.011	0	0.089	0	0.203	0.029	0.422	0.379

V18	0	0	0	0.047	0.172	0.095	0.113	0.001	0.126	0.463
V19	0.176	0.007	0	0.2	0.366	0.001	0	0.064	0.483	0.088
V20	0.278	0.056	0	0.008	0.412	0.163	0.001	0.105	0.465	0.395
V21	0.001	0.319	0.002	0	0.047	0.076	0.375	0.314	0.433	0
V22	0.033	0.012	0	0.11	0	0.004	0.02	0	0.281	0.004

Matrix continued...

		V11	V12	V13	V14	V15	V16	V17	V18	V19	V20	V21	V22
	V1	0.032	0.089	0.25	0.25	0.332	0.516	0.414	0.335	0.059	0.037	0.202	0.116
	V2	0.035	0.341	0.13	0.178	0.149	0.152	0.129	0.217	0.157	0.101	0.03	0.142
	V3	0.199	-0.15	0.02	-0.01	0.091	0.088	0.145	0.238	0.303	0.372	-0.18	0.238
	V4	0.092	-0.27	-0.09	0.034	-0.03	0.066	0.211	0.106	0.053	0.153	-0.26	0.078
	V5	-0.16	0.127	0.24	0.132	0.132	0.211	0.085	-0.06	0.022	0.014	0.106	0.223
	V6	0.133	0.15	0.18	0.283	0.268	0.333	0.218	0.083	0.189	0.062	0.091	0.168
	V7	0.026	0.433	0.13	0.148	0.066	0.132	0.053	-0.08	0.34	0.194	-0.02	0.13
	V8	0.175	-0.13	0.01	0.008	-0.08	-0.1	-0.12	-0.21	-0.1	-0.08	-0.03	-0.21
	V9	-0.04	0.07	0.05	0.011	-0.05	-0.05	-0.01	-0.07	-0	0.006	0.011	-0.04
	V10	0.184	0.424	0.23	0.146	0.075	0.11	0.02	0.006	0.086	0.017	0.209	-0.17
	V11	1	0.166	0.01	0.23	0.303	0.123	0.183	0.171	0.017	0.153	-0.05	0.008
	V12	0.166	1	0.17	0.326	0.115	0.208	0.155	0.048	0.079	0.143	0.047	-0.06
	V13	0.014	0.173	1	0.248	0.262	0.317	0.262	0.283	0.207	0.183	0.188	0.177
	V14	0.23	0.326	0.25	1	0.331	0.463	0.455	0.294	0.077	0.207	0.05	0.211
	V15	0.303	0.115	0.26	0.331	1	0.689	0.595	0.607	0.307	0.357	-0.03	0.418
	V16	0.123	0.208	0.32	0.463	0.689	1	0.686	0.564	0.208	0.276	0.016	0.337
	V17	0.183	0.155	0.26	0.455	0.595	0.686	1	0.567	0.225	0.227	0.044	0.25
	V18	0.171	0.048	0.28	0.294	0.607	0.564	0.567	1	0.39	0.45	0.019	0.476
	V19	0.017	0.079	0.21	0.077	0.307	0.208	0.225	0.39	1	0.705	-0.04	0.607
	V20	0.153	0.143	0.18	0.207	0.357	0.276	0.227	0.45	0.705	1	-0.3	0.627
	V21	-0.05	0.047	0.19	0.05	-0.03	0.016	0.044	0.019	-0.04	-0.3	1	-0.09
	V22	0.008	-0.06	0.18	0.211	0.418	0.337	0.25	0.476	0.607	0.627	-0.09	1
Sig. (1-tailed)	V1	0.306	0.081	0	0	0	0	0	0	0.176	0.278	0.001	0.033
	V2	0.289	0	0.02	0.002	0.009	0.008	0.021	0	0.007	0.056	0.319	0.012
	V3	0.001	0.009	0.37	0.467	0.075	0.083	0.011	0	0	0	0.002	0
	V4	0.073	0	0.08	0.299	0.307	0.15	0	0.047	0.2	0.008	0	0.11
	V5	0.007	0.023	0	0.018	0.019	0	0.089	0.172	0.366	0.412	0.047	0
	V6	0.018	0.009	0	0	0	0	0	0.095	0.001	0.163	0.076	0.004
	V7	0.344	0	0.02	0.01	0.151	0.019	0.203	0.113	0	0.001	0.375	0.02
	V8	0.003	0.02	0.47	0.447	0.116	0.067	0.029	0.001	0.064	0.105	0.314	0
	V9	0.276	0.135	0.23	0.434	0.231	0.213	0.422	0.126	0.483	0.465	0.433	0.281
	V10	0.002	0	0	0.01	0.119	0.041	0.379	0.463	0.088	0.395	0	0.004
	V11		0.004	0.41	0	0	0.026	0.002	0.003	0.393	0.008	0.199	0.45
	V12	0.004		0	0	0.035	0	0.007	0.225	0.108	0.012	0.228	0.195
	V13	0.413	0.003		0	0	0	0	0	0	0.002	0.001	0.003
	V14	0	0	0		0	0	0	0	0.112	0.001	0.215	0
	V15	0	0.035	0	0		0	0	0	0	0	0.33	0
	V16	0.026	0	0	0	0		0	0	0	0	0.401	0
	V17	0.002	0.007	0	0	0	0		0	0	0	0.246	0

	V18	0.003	0.225	0	0	0	0	0		0	0	0.381	0
	V19	0.393	0.108	0	0.112	0	0	0	0		0	0.259	0
	V20	0.008	0.012	0	0.001	0	0	0	0	0		0	0
	V21	0.199	0.228	0	0.215	0.33	0.401	0.246	0.381	0.259	0		0.073
	V22	0.45	0.195	0	0	0	0	0	0	0	0	0.073	

Communalities

	Initial	Extraction
V1	1.000	.539
V2	1.000	.456
V3	1.000	.686
V4	1.000	.683
V5	1.000	.734
V6	1.000	.635
V7	1.000	.617
V8	1.000	.824
V9	1.000	.853
V10	1.000	.709
V11	1.000	.639
V12	1.000	.663
V13	1.000	.431
V14	1.000	.516
V15	1.000	.667
V16	1.000	.777
V17	1.000	.721
V18	1.000	.773
V19	1.000	.824
V20	1.000	.808
V21	1.000	.645
V22	1.000	.733

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.861	22.094	22.094	4.861	22.094	22.094	3.597	16.349	16.349
2	2.772	12.599	34.693	2.772	12.599	34.693	2.780	12.637	28.986
3	1.895	8.616	43.309	1.895	8.616	43.309	2.391	10.867	39.852
4	1.828	8.311	51.619	1.828	8.311	51.619	1.649	7.497	47.349
5	1.400	6.365	57.984	1.400	6.365	57.984	1.527	6.941	54.289
6	1.128	5.126	63.110	1.128	5.126	63.110	1.512	6.875	61.164
7	1.050	4.774	67.884	1.050	4.774	67.884	1.478	6.720	67.884
8	.897	4.078	71.962						
9	.891	4.048	76.010						
10	.727	3.306	79.317						
11	.716	3.257	82.573						
12	.656	2.981	85.554						
13	.564	2.562	88.116						
14	.491	2.230	90.345						
15	.427	1.943	92.288						
16	.341	1.548	93.836						
17	.299	1.357	95.193						
18	.250	1.137	96.330						
19	.230	1.043	97.374						
20	.208	.947	98.320						
21	.206	.935	99.256						
22	.164	.744	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix (a)

	Component						
	1	2	3	4	5	6	7
V1	.556	-.058	.016	-.215	.279	.317	.034
V2	.190	.113	.610	-.116	.113	.090	-.034
V3	.055	.452	-.518	.139	.239	-.241	.276
V4	.123	.112	-.633	.035	.174	-.439	.172
V5	.123	.025	.139	.075	.736	.031	-.390
V6	.211	.076	.131	-.050	.678	.195	.259
V7	-.065	.267	.641	.066	.327	-.125	.057
V8	-.097	-.113	-.216	.816	.016	.069	.290
V9	-.009	.027	.095	.908	.010	-.018	-.137
V10	-.020	-.014	.441	.083	.210	.396	.553
V11	.234	.027	.006	.038	-.095	-.122	.747
V12	.170	-.018	.740	.043	.093	-.100	.256
V13	.324	.229	.113	.155	.187	.449	-.031
V14	.611	-.026	.245	.092	.171	-.125	.166
V15	.754	.287	.060	-.017	-.034	.069	.080
V16	.848	.127	.069	-.027	.186	.035	.004
V17	.839	.097	-.031	-.014	.059	-.032	.055
V18	.690	.451	-.066	-.114	-.234	.140	.033
V19	.064	.891	.103	-.024	.062	.088	.063
V20	.200	.839	.080	.018	-.042	-.208	.110
V21	.023	-.155	.004	-.015	.067	.785	-.018
V22	.292	.754	-.018	-.091	.098	-.037	-.245

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 10 iterations.

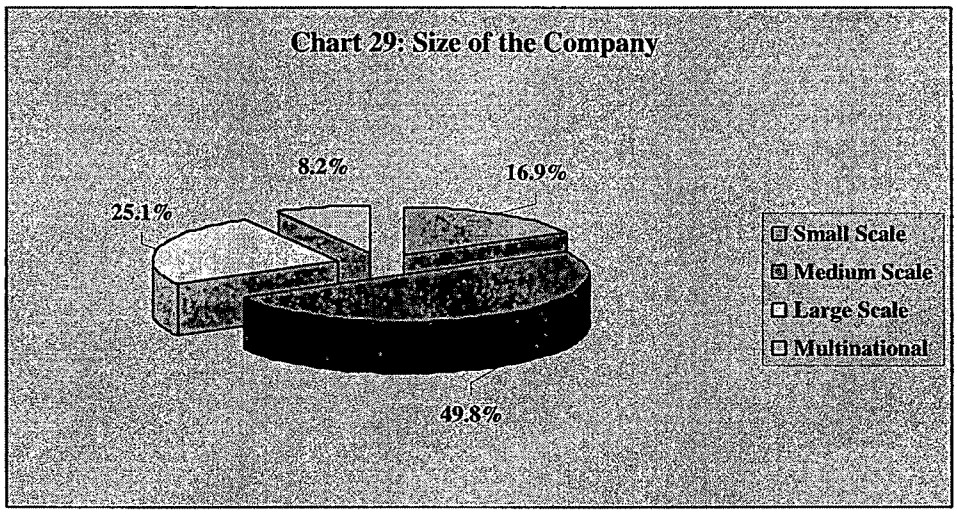
SECTION IV: MEDICAL REPRESENTATIVE'S RESPONSE

I. Medical Representative's response: Descriptive analysis

5.29 Background profile of the Medical Representatives

5.29.1 Size of the Company employed with

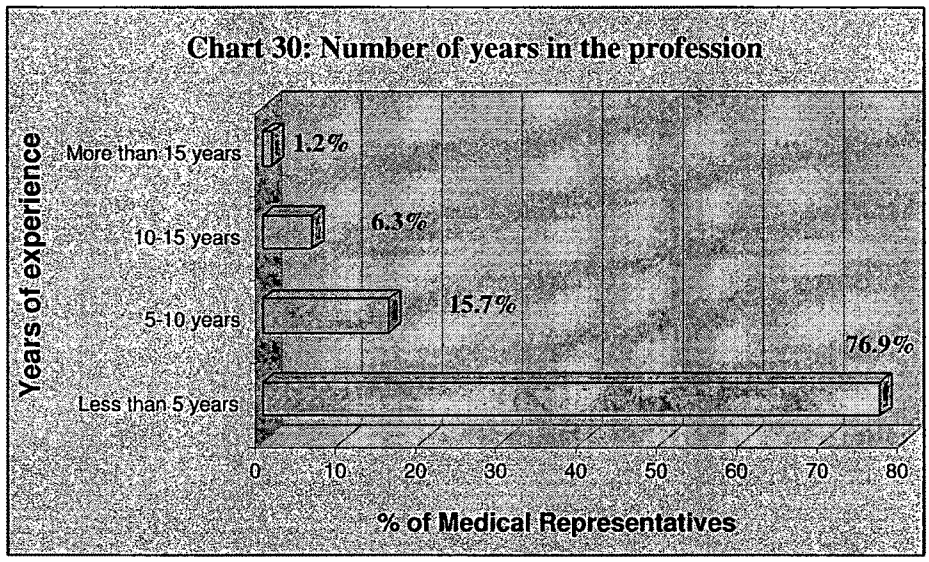
Among the medical representatives who were surveyed from all the selected cities, 49.8% medical representatives were from medium scale companies. 25.1% were working in large scale companies, 16.9% were employed in small scale firms and 8.2% medical representatives were working in multinational companies. (Appendix IV, Table 70)



5.29.2 Years in the profession

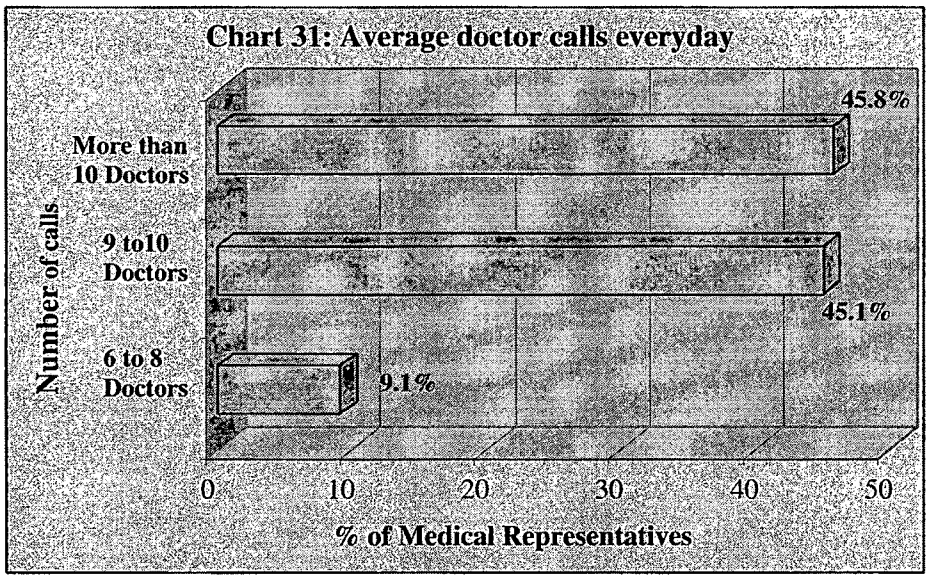
Medical representatives were asked about their years of experience in the industry. Across all the selected cities, 76.9% had an experience of less than 5 years. 15.7% MRs were having an experience of 5 to 10 years in the field, 6.3% had worked for 10

to 15 years industry and 1.2% had an experience of more than 15 years in the industry. (Appendix IV, Table 71)



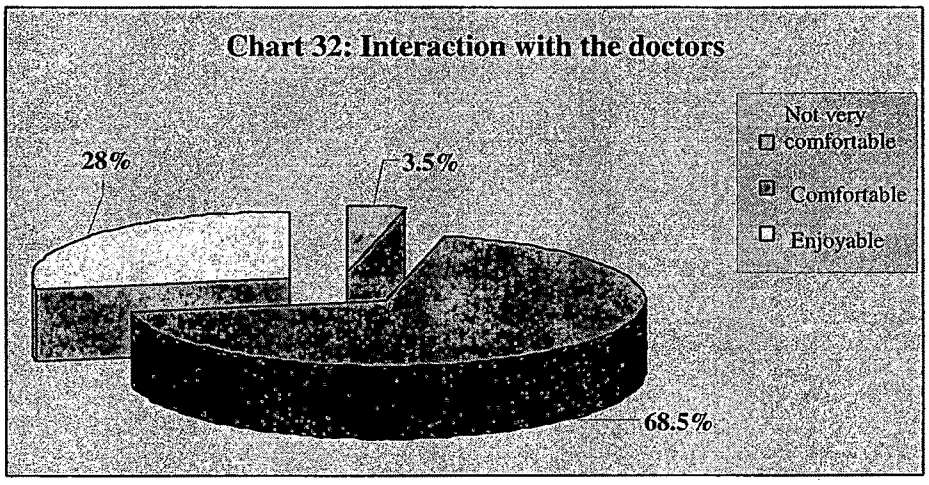
5.29.3 Frequency of visit to the doctors

Medical representatives were asked about the average number of doctors that they visit across all the selected cities. 9.1% MRs responded that they visit 6 to 8 doctors per day. 45.1% do average calls of 9 to 10 doctors per day and 45.8% MRs do average visits of more than 10 doctors per day. (Appendix IV, Table 72)



5.29.4 Interaction with the doctors

Medical Representatives were asked about their experience regarding the interaction with the doctors across all the selected cities. 28% medical representatives responded that they enjoy while interacting with the doctors. 68.5% said that they feel comfortable in making call to the doctors and 3.5% responded that they feel uncomfortable while interacting with the doctors. (Appendix IV, Table 73)



Attitudinal Informational

5.30 Opinion about the doctor and medical representative relationship

Medical representatives were asked that whether the doctors consider them as an important source of information for prescribing medicines. They were neutral and had a diverse opinion about the statement. Medical representatives were asked that whether the doctor's trust on them helps in prescribing their medicine brands. They were neutral and had a diverse opinion about the statement. Medical representatives were asked that when the doctor accepts any gift or obligation from them, they are obliged to prescribe their medicine brands. They disagree on the statement and had diverse opinion. Medical representatives were asked that when the doctor accepts samples from them, they are obliged to prescribe their medicine brands. They disagreeing on the statement and had diverse opinion. Medical representatives were asked that the doctors are more likely to prescribe their medicine brand, if they possess adequate knowledge. They were neutral on the statement and had a diverse opinion. Medical representatives were asked that the doctors generally prefer those medical representatives, who provide genuine information about their medicine brands. They were neutral on the statement and had a diverse opinion. (Appendix IV, Table 74)

5.31 Factors motivate the doctors to prescribe a medicine brand

Across all the selected cities, medical representatives were asked to rank the factors that they believe will motivate the doctors to prescribe their medicine brands. They were of the opinion that doctors relatively prefer the medicine brands which are

supported by *authentic technical information* (wtg. avg. 3.756), *seminars and workshops* conducted by the drug manufacturers (wtg. avg. 2.807). In their opinion, doctors also consider the *companies image or medicine brand image* (wtg. avg. 2.788) while prescribing and have a favourable opinion for a medicine brand due to the *gifts and other obligations* offered by the companies (wtg. avg. 2.757). Doctors sometimes do refer to the recommendations of the fellow doctors or friends in the same profession or experts, in case, need clarification regarding the treatment for a specific disease (wtg. avg. 2.669). (Appendix IV, Table 75)

Factors motivate doctors to prescribe	Rank in terms of Weighted Average
Authenticated technical information	***3.756***
Seminars/Workshops conducted by companies	***2.807***
Corporate image/ Medicine brand image	***2.788***
Gifts and other obligations	***2.752***
Recommendation of fellow doctor/ friends/ experts	***2.669***

5.32 Perception on prescription behaviour of the doctor

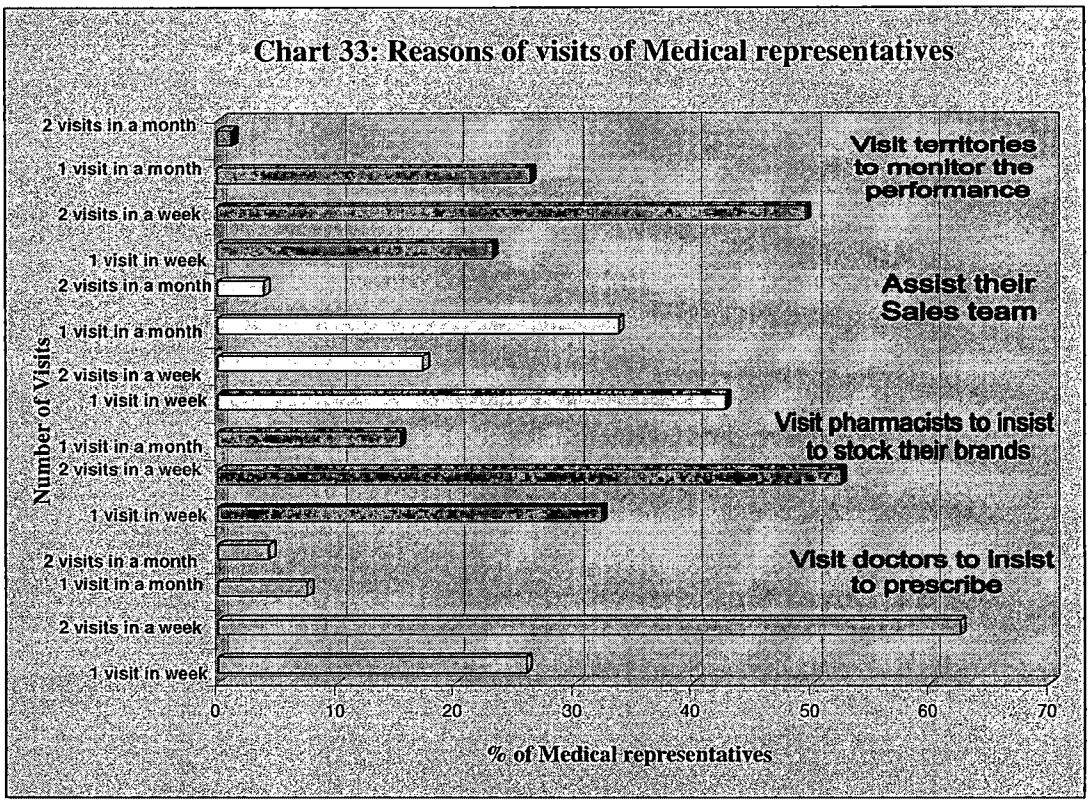
Medical representatives across all the selected cities were asked that whether the doctors are generally price conscious when they prescribe medicine brands to their patients. They were neutral and had a diverse opinion on the statement. Medical representatives were asked whether aggressive promotions from the company may influence the prescription behavior of doctors. They were neutral and had a diverse opinion on the statement. Medical representatives across all the selected cities were asked that whether the samples, gifts and other obligations from the company influence the prescription behavior of doctors. They were neutral and had a diverse opinion on the statement. Medical representatives were asked that whether the

frequent visits made by them to the doctor normally influence their prescription choice for the medicine brands. They were neutral and had a diverse opinion on the statement. (Appendix IV, Table 76)

5.33 Reasons of visit of Medical Representative to the market

5.33.1 Visit to the doctors

Medical representatives were asked that how often they visit doctors to insist them to prescribe their medicine brands. Across all the selected cities, 25.9% responded that they *visit once in every week* and 62.4% said that they *visit twice in every week* to the doctors. 7.5% medical representatives said that they *visit once in every month* and 4.3% said that they *visit twice in a month* to the doctors. (Appendix IV, Table 77)



5.33.2 Visit to the Pharmacists

Medical representatives were asked that how often they visit pharmacists to insist them to stock their medicine brands. Across all the selected cities, 32.3% responded that they *visit once in every week* and 52.4% said that they *visit twice in every week.* 15.4% medical representatives said that they visit once in every month to the pharmacists. (Appendix IV, Table 77)

5.33.3 Assist the sales group of their company

Medical representatives were asked that how often they visit to the market to assist their sales group. Across all the selected cities, 42.7% responded that they *visit once in every week* and 17.3% said that they *visit twice in every week.* 33.7% medical representatives said that they *visit once in every month* to the market and 3.9% said that they *visit twice in every month.* (Appendix IV, Table 77)

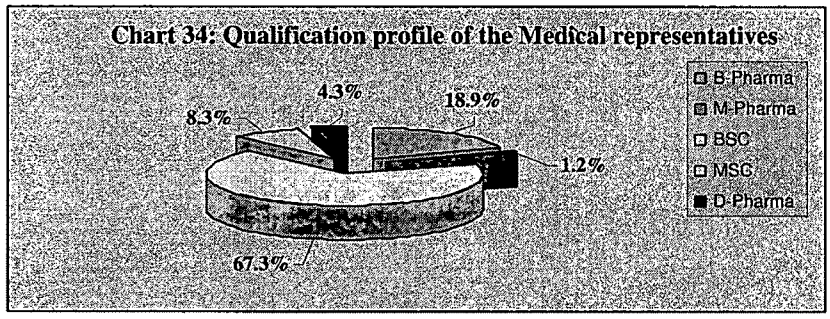
5.33.4 Visit to their sales territories to monitor the market performance

Medical representatives were asked that how often they visit their territories to assess the performance in the market. Across all the selected cities, 23.1% responded that they *visit once in every week* and 49.4% said that they *visit twice in every week.* 26.3% medical representatives said that they visit once in every month to their territories and 1.2% said that they visit twice in a month to assess their performance. (Appendix IV, Table 77)

5.34 Demographic profile of the Medical representatives

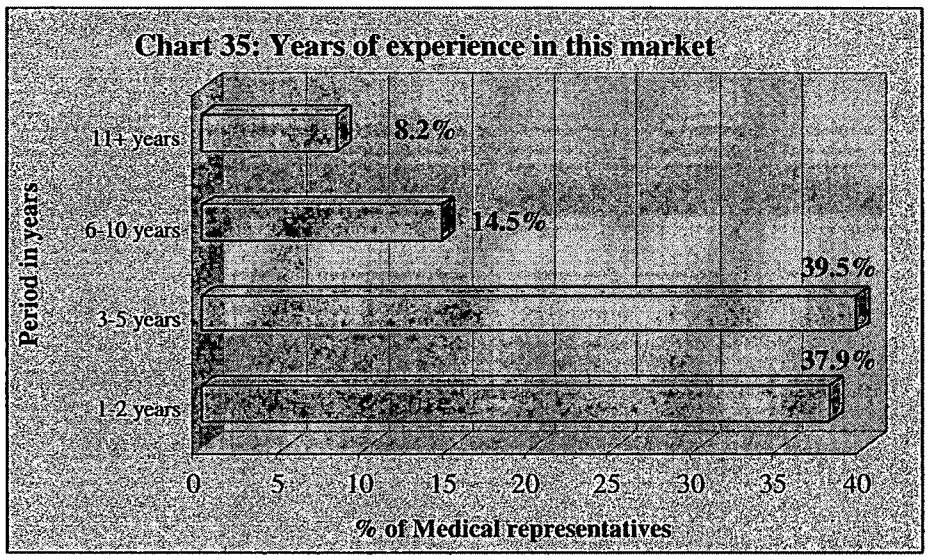
5.34.1 Qualification details of the Medical representatives

Across all the selected cities, 18.9% medical representatives were having *B. Pharma,* 1.2% medical representatives had done *M. Pharma,* 67.3% had done *B. Sc.,* 8.3% had done *M. Sc.* and 4.3% medical representatives were having *D. Pharma.* (Appendix IV, Table 78)



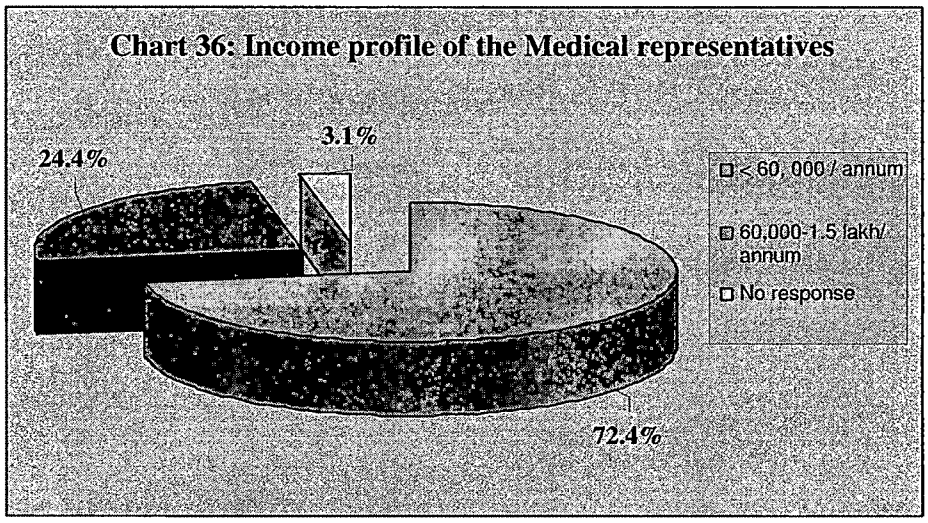
5.34.2 Experience profile of the Medical representatives

Medical representatives were asked about their years of experience in this profession. Across all the selected cities, 37.9% medical representatives were having an experience of 1 to 2 years, 39.5% were having an experience of 3 to 5 years and 14.5% had an experience of 6 to 10 years. There were 8.2% medical representatives, who responded that they had an experience of more than 11 years. (Appendix IV, Table 78)



5.34.3 Income profile of the Medical representatives

Medical representatives were asked about the annual income that they earn from the practice. Across the selected cities, 72.4% responded that they had annual earnings of less than Rs. 60,000. 24.4% medical representatives were having an earning between Rs. 60,000 to 1.5 lakh rupees per annum. There were 3.1% medical representatives who had not responded. (Appendix IV, Table 78)



II. Medical representative's response: Bivariate and Multivariate analysis

5.35 ANOVA: ***Three*** composite variables and ***eighteen*** variables i.e. V1 to V18, were used separately for ANOVA. Similarly, ***three*** composite variables and ***eighteen*** variables i.e. V1 to V18 were used separately for Factor analysis.

***Three* composite variables:**

1. Opinion about doctor and medical representative relationship. (Flemming, et.al., 1990)

2. Perception on prescription behaviour. (Marks, et al., 1988, Stinebaugh, et al. 2003, Berndt, et al. 1994)
3. Reasons of visit of medical representatives to the market. (Flemming, et.al., 1990, Berndt, et al. 1994)

***Eighteen* Variables:**

Codes	Description
V1	Size of the Company
V2	Number of years in the profession
V3	Average doctor calls everyday
V4	Interaction with the doctor
V5	Doctors consider medical representatives as important source of information
V6	Doctor trusts me, he/she is more inclined to prescribe my medicine brands
V7	When a doctor accepts gifts/obligation from me, he/she is obliged to prescribe my medicine brands
V8	When a doctor accepts samples from me, he/she is obliged to prescribe my medicine brands
V9	Doctors are more likely to prescribe my medicine brands, if I possess adequate knowledge
V10	Doctor generally prefer those MRs who provides genuine information about their medicine brands
V11	Doctors are generally price conscious when they prescribe medicine brands to their patients
V12	Aggressive promotions from the company may influence the prescription behaviour of doctors
V13	Samples, gifts and other obligations from the Company does Influence the prescription behaviour of doctors
V14	Frequent visits to the doctor normally influence their prescription choice for the medicine brands
V15	Visiting doctors to insist them to prescribe my medicine brands
V16	Visiting pharmacists to insist them to Stock my medicine brands
V17	Assist sales group
V18	Visit territories at regular intervals to monitor the performance

5.35.1 ANOVA for qualification categories and *three* composite constructs

It can be seen from the ANOVA (Appendix IV, Table 79), that *F statistic* value (18.503) for the *first composite variable* at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and

245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the education level of the medical representative do not have any significant impact on the *opinion about doctor and medical representative relationship*.

The *F statistic* value (6.6.75) for the second composite variable at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the education level of the medical representative do not have any significant impact on the *perception on prescription behaviour.*

The value of *F statistic* (5.344) for the third composite variable at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the education level of the medical representative do not have any significant impact on the *reasons of visit of medical representative to the market.*

Inference: It can be inferred that education level of the medical representative i.e. B. Pharma, M. Pharma, B.Sc., M.Sc. and D. Pharma, do not have any significant impact on the *opinion about doctor and medical representative relationship,* the *perception on prescription behaviour* and the *reasons of visit of medical representative to the market.* **The implications of the above findings are that irrespective of the education background of the medical representative, building relationship with the doctors,**

tracking prescription behaviour and visits to the market are the regular component of the profession of medical representative.

5.35.2 ANOVA for categories of years of experience and *three* composite constructs

It can be seen from the ANOVA (Appendix IV, Table 80), that *F statistic* value (9.541) for the *first composite variable* at $\alpha = 0.05$ is more than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the years of experience of the medical representative do not have any significant impact on the *opinion about doctor and medical representative relationship.*

The *F statistic* value (4.524) for the second composite variable at $\alpha = 0.05$ is more than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the years of experience of the medical representative do not have any significant impact on the *perception on prescription behaviour.*

The value of *F statistic* (7.072) for the third composite variable at $\alpha = 0.05$ is more than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the years of experience of the medical representative do not have any significant impact on the *reasons of visit of medical representative to the market.*

Inference: It can be inferred that years of experience of the medical representative i.e. 1 to 2 years, 3 to 5 years, 6 to 10 years and above 10 years, do not have any significant impact on the *opinion about doctor and medical representative relationship,* the *perception on prescription behaviour* and the *reasons of visit of medical representative to the market.* **The implications of the above findings are that irrespective of the education background of the medical representative, building relationship with the doctors, tracking prescription behaviour and visits to the market are the regular component of the profession of medical representative.**

5.35.3 ANOVA for qualification categories and *eighteen* constructs

It can be seen from the ANOVA (Appendix IV, Table 81), that *F statistic* value (3.535) for variable V1 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the qualification of the medical representative do not have any significant impact on the *size of the company where they are employed.*

The *F statistic* value (22.820) for the variable V2 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the qualification of the medical representative does not have any significant impact on the *number of years in the profession.*

The value of *F statistic* (5.973) for the variable V3 at $\alpha = 0.05$ is more than the critical

value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the qualification of the medical representative does not have any significant impact on the *average doctor calls per day.*

For the variable V4, the value of *F statistic* (6.302) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the qualification of the medical representative does not have any significant impact on the *interaction with the doctors.*

F statistic value (7.864) for variable V5 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the qualification of the medical representative do not have any significant impact on the opinion that *doctors consider medical representatives as a important source of information.*

The *F statistic* value (12.586) for the variable V6 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the qualification of the medical representative does not have any significant impact on the opinion that the *doctor trusts on the medical representative will inclined to prescribe their medicine brands.*

The value of *F statistic* (6.634) for the variable V7 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the qualification of the medical

representative does not have any significant impact on the opinion that *when a doctor accepts gifts/obligation from medical representative, he/she is obliged to prescribe their medicine brands.*

For the variable V8, the value of *F statistic* (4.399) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the qualification of the medical representative does not have any significant impact on the opinion that *when a doctor accepts samples from me, he/she is obliged to prescribe my medicine brands.*

The *F statistic* value (4.857) for variable V9 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the qualification of the medical representative do not have any significant impact on the opinion that *doctors are more likely to prescribe the medicine brands of my company, if I possess adequate knowledge.*

The *F statistic* value (5.815) for the variable V10 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the qualification of the medical representative does not have any significant impact on the opinion that *doctors generally prefer those medical representatives who provides genuine information about their medicine brands.*

The value of *F statistic* (4.975) for the variable V11 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category

means are equal is rejected. This means that the qualification of the medical representative does not have any significant impact on the opinion that *doctors are generally price conscious when they prescribe medicine brands to their patients.*

For the variable V12, the value of *F statistic* (4.930) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the qualification of the medical representative does not have any significant impact on the opinion that *aggressive promotions from the company may influence the prescription behaviour of doctors.*

The value of *F statistic* (3.211) for the variable V13 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the qualification of the medical representative does not have any significant impact on the opinion that *samples, gifts and other obligations from the company does influence the prescription behaviour of doctors.*

For the variable V14, the value of *F statistic* (8.295) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the qualification of the medical representative does not have any significant impact on the opinion that *frequent visits of medical representatives to the doctor normally influence their prescription choice for the medicine brands.*

For the variable V15, the value of *F statistic* (1.244) is less than the critical value (2.37)

at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the qualification of the medical representative does not have any significant impact on the opinion that they *visit doctor to insist them to prescribe their medicine brands.*

The value of *F statistic* (3.826) for the variable V16 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the qualification of the medical representative does not have any significant impact on the opinion that *they visit pharmacists to insist them to stock their medicine brands.*

For the variable V17, the value of *F statistic* (2.667) is more than the critical value (2.37) at $\alpha = 0.05$ for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the qualification of the medical representative does not have any significant impact on their *visit to the market to assist their sales group.*

The value of *F statistic* (11.221) for the variable V18 at $\alpha = 0.05$ is more than the critical value (2.37) for 4 and 245 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the qualification of the medical representative does not have any significant impact on the opinion that *they visit territories at regular intervals to monitor the performance of the company.*

Inference: It can be inferred that education level of the medical representative i.e. B. Pharma, M. Pharma, B.Sc., M.Sc. and D. Pharma, do not have any significant impact on

the variables V1 *'size of the company where they are employed'* , V2 'the *number of years in the profession'*,V3 'the *average doctor calls per day,* the *interaction with the doctors'*, and on the constructs that 'the *doctors consider medical representatives as a important source of information'* V4, V5 'the *doctor trusts on the medical representative will inclined to prescribe their medicine brands'*, V6 *'when a doctor accepts gifts/obligation from medical representative, he/she is obliged to prescribe their medicine brands'*, V7 'the *doctors are more likely to prescribe the medicine brands of my company, if I possess adequate knowledge'*, V8 *'when a doctor accepts samples from me, he/she is obliged to prescribe my medicine brands'*, V9 *'doctors are more likely to prescribe the medicine brands of my company, if I possess adequate knowledge'*, V10 *'doctors generally prefer those medical representatives who provides genuine information about their medicine brands'*, V11 *'doctors are generally price conscious when they prescribe medicine brands to their patients'*, V12 *'aggressive promotions from the company may influence the prescription behaviour of doctors'*, V13 *'samples, gifts and other obligations from the company does influence the prescription behaviour of doctors'*, V14 *'frequent visits of medical representatives to the doctor normally influence their prescription choice for the medicine brands'*, V16 *'they visit pharmacists to insist them to stock their medicine brands'*, V17 *'visit to the market to assist their sales group'* and V18 *'they visit territories at regular intervals to monitor the performance of the company'*. However, the education level of the medical representative does have a significant impact on the construct V15 *'visit doctor to insist them to prescribe their medicine brands'*. **The implications of the above findings are that the doctor inclination relatively more towards the medical representative with better education**

and experience. Medical representative with higher education develop an ability and knowledge which get acknowledged with doctors response in terms of prescribing their medicine brands.

5.35.4 ANOVA for categories of years of experience and *eighteen* constructs

It can be seen from the ANOVA (Appendix IV, Table 82), that *F statistic* value (1.479) for variable V1 at $\alpha = 0.05$ is less than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the years of experience of the medical representative do have a significant impact on the *size of the company where they are employed.*

The *F statistic* value (102.817) for the variable V2 at $\alpha = 0.05$ is more than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the years of experience of the medical representative does not have any significant impact on the *number of years in the profession.*

The value of *F statistic* (7.265) for the variable V3 at $\alpha = 0.05$ is more than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the years of experience of the medical representative does not have any significant impact on the *average doctor calls per day.*

For the variable V4, the value of *F statistic* (1.501) is less than the critical value (2.60) at $\alpha = 0.05$ for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category

means are equal is accepted. This means that the years of experience of the medical representative does have a significant impact on the *interaction with the doctors.*

F statistic value (10.562) for variable V5 at $\alpha = 0.05$ is more than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the years of experience of the medical representative do not have any significant impact on the opinion that *doctors consider medical representatives as a important source of information.*

The *F statistic* value (5.002) for the variable V6 at $\alpha = 0.05$ is more than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the years of experience of the medical representative does not have any significant impact on the opinion that the *doctor trusts on the medical representative will inclined to prescribe their medicine brands.*

The value of *F statistic* (3.744) for the variable V7 at $\alpha = 0.05$ is more than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the years of experience of the medical representative does not have any significant impact on the opinion that *when a doctor accepts gifts/obligation from medical representative, he/she is obliged to prescribe their medicine brands.*

For the variable V8, the value of *F statistic* (2.428) is less than the critical value (2.60) at $\alpha = 0.05$ for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the years of experience of the medical

representative does have a significant impact on the opinion that *when a doctor accepts samples from me, he/she is obliged to prescribe my medicine brands.*

The *F statistic* value (2.037) for variable V9 at $\alpha = 0.05$ is less than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the years of experience of the medical representative do have a significant impact on the opinion that *doctors are more likely to prescribe the medicine brands of my company, if I possess adequate knowledge.*

The *F statistic* value (2.527) for the variable V10 at $\alpha = 0.05$ is less than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the years of experience of the medical representative does have a significant impact on the opinion that *doctors generally prefer those medical representatives who provides genuine information about their medicine brands.*

The value of *F statistic* (4.901) for the variable V11 at $\alpha = 0.05$ is more than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the years of experience of the medical representative does not have any significant impact on the opinion that *doctors are generally price conscious when they prescribe medicine brands to their patients.*

For the variable V12, the value of *F statistic* (2.310) is less than the critical value (2.60) at $\alpha = 0.05$ for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category

means are equal is accepted. This means that the years of experience of the medical representative does have a significant impact on the opinion that *aggressive promotions from the company may influence the prescription behaviour of doctors.*

The value of *F statistic* (3.791) for the variable V13 at $\alpha = 0.05$ is more than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the years of experience of the medical representative does not have any significant impact on the opinion that *samples, gifts and other obligations from the company does influence the prescription behaviour of doctors.*

For the variable V14, the value of *F statistic* (3.637) is more than the critical value (2.60) at $\alpha = 0.05$ for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the years of experience of the medical representative does not have any significant impact on the opinion that *frequent visits of medical representatives to the doctor normally influence their prescription choice for the medicine brands.*

For the variable V15, the value of *F statistic* (5.003) is more than the critical value (2.60) at $\alpha = 0.05$ for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the years of experience of the medical representative does not have any significant impact on the opinion that they *visit doctor to insist them to prescribe their medicine brands.*

The value of *F statistic* (1.591) for the variable V16 at $\alpha = 0.05$ is less than the critical

value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the years of experience of the medical representative does have a significant impact on the opinion that *they visit pharmacists to insist them to stock their medicine brands.*

For the variable V17, the value of *F statistic* (2.435) is less than the critical value (2.60) at $\alpha = 0.05$ for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is accepted. This means that the years of experience of the medical representative does have a significant impact on their *visit to the market to assist their sales group.*

The value of *F statistic* (16.189) for the variable V18 at $\alpha = 0.05$ is more than the critical value (2.60) for 3 and 246 degrees of freedom. Thus, the null hypothesis that the category means are equal is rejected. This means that the years of experience of the medical representative does not have any significant impact on the opinion that *they visit territories at regular intervals to monitor the performance of the company.*

Inference: It can be inferred that the years of experience of the medical representative i.e. 1-2 years, 3-5 years, 6-10 years and above 10 years, do not have any significant impact on the variables V2 'the *number of years in the profession'*, V3 'the *average doctor calls per day,* the *interaction with the doctors'*, and on the constructs that, V5 'the *doctor trusts on the medical representative will inclined to prescribe their medicine brands'*, V6 '*when a doctor accepts gifts/obligation from medical representative, he/she is obliged to prescribe their medicine brands'*, V7 'the *doctors are more likely to prescribe the*

medicine brands of my company, if I possess adequate knowledge', V11 *'doctors are generally price conscious when they prescribe medicine brands to their patients'*, V13 *'samples, gifts and other obligations from the company does influence the prescription behaviour of doctors'*, V14 *'frequent visits of medical representatives to the doctor normally influence their prescription choice for the medicine brands'*, and V18 *'they visit territories at regular intervals to monitor the performance of the company'*. However, the years of experience of the medical representative does have a significant impact on the variable V1 *'size of the company where they are employed'*, and on the constructs V4 *'the doctors consider medical representatives as a important source of information'*, V8 *'when a doctor accepts samples from me, he/she is obliged to prescribe my medicine brands'*, V9 *'doctors are more likely to prescribe the medicine brands of my company, if I possess adequate knowledge'*, V10 *'doctors generally prefer those medical representatives who provides genuine information about their medicine brands'*, V12 *'aggressive promotions from the company may influence the prescription behaviour of doctors'*, V15 *'visit doctor to insist them to prescribe their medicine brands'* and V16 *'they visit pharmacists to insist them to stock their medicine brands'* and V17 *'visit to the market to assist their sales group'*. **The implications of the above findings are that with experience and possessing adequate knowledge regarding the medicines, medical representative being considered as an important source of information for the doctors and are more likely to get prescription for their medicine brands. Medical representative usually visit doctors to offer the promotional schemes of their company and regularly meet pharmacists to insist them to keep the stock of their medicine brands.**

5.36 Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.781	*.764*	*20*

The *Cronbach's alpha* or *coefficient alpha* value (0.781) shows fairly strong internal consistency reliability of the 20 scaled items used to construct the medical representative beliefs.

Inference: The scaled items assessed through the Cronbach's alpha are found to be fairly consistent and reliable.

5.37 Factor Analysis

Five composite variables and ***eighteen*** variables i.e. V1 to V18, were used separately for Factor analysis. These two separate variable sets used to test factor analysis, correlation and descriptive analysis. The details of the selected variables are mentioned below:

Five **composite variables:**

Variable 1: Opinion about doctor and medical representative relationship.

Variable 2: Perception on prescription behaviour.

Variable 3: Reasons of visit of medical representative to the market.

Variable 4: Qualification of the medical representative.

Variable 5: Years of experience in this market.

Eighteen **construct variables:**

Codes	Description
V1	Size of the company
V2	Number of years in the profession
V3	Average doctor calls per day
V4	Interaction with the doctor
V5	Doctors consider medical representatives as important source of information
V6	Doctor trusts me and so he/she is more inclined to prescribe my medicine brands
V7	When a doctor accepts gifts/obligation from me, he/she is obliged to prescribe my medicine brands
V8	When a doctor accepts samples from me, he/she is obliged to prescribe my medicine brands
V9	Doctors are more likely to prescribe my medicine brands, if I possess adequate knowledge
V10	Doctor generally prefer those medical representatives who provides genuine information about their medicine brands
V11	Doctors are generally price conscious when they prescribe medicine brands to their patients
V12	Aggressive promotions from the company may influence the prescription behaviour of doctors
V13	Samples, gifts and other obligations from the company does influence the prescription behaviour of doctors
V14	Frequent visits to the doctor normally influence their prescription choice for the medicine brands
V15	Visiting doctors to insist them to prescribe my medicine brands
V16	Visiting pharmacists to insist them to stock my medicine brands
V17	Assist sales group
V18	Visit territories at regular intervals to monitor the performance

5.37.1 Factor Analysis for *five* composite variables

It can be seen from the *Correlation matrix*, the *perception on prescription behaviour of the medical representative* is relatively more influenced by *opinion about doctor and medical representative relationship* as high correlated exists between them (0.786) and has relatively moderate correlation with the qualification of the medical representative (0.456). The *perception on prescription behaviour of the medical representative* is also strongly influenced by the *reasons of visit of medical representative to the market* (0.752).

Communalities for all the five composite variables were one and thus were inserted in the diagonals of the correlation matrix for further analysis.

Initial Eigenvalues of the *two factors* explaining the total variance are more than one; therefore both the factors are included in the final analysis. *Factor 1* account for a variance of 2.436, which is 48.726% of the total variance explained by the two factors. Similarly, *Factor 2* accounts for a variance of 1.482 and explaining 29.633% of total variance. Thus, the *two factors* combined together explain 78.359% of total variance, which is relatively significant.

Rotated component matrix shows that *Factor 1* has relatively high coefficients for variables '*opinion about doctor and medical relationship*' (.848), '*perception on prescription behaviour*' (.928) and '*reasons of the visit of medical representative to the market*' (.887). Therefore this factor is labeled as **'impact of prescription behaviour'**. *Factor 2* has relatively high factor loading on the variable '*qualification of the medical*

representative' (.786). Thus, this factor is labeled as '**educational impact**'. Now, these *two factors* will be further verified, by including all the *eighteen construct* variables, which are there in the belief constructs in the questionnaire, and factor analysis, will be again executed to find the final factors.

Correlation Matrix

		Opinion about Doctor and MR relationship	Perception on prescription behaviour	Reasons of visit of MR to the market	Qualification of the MR	Years of experience in this market
Correlation	Opinion about Doctor and MR relationship	1.000	.786	.655	.456	-.281
	Perception on prescription behaviour	.786	1.000	.752	.308	-.193
	Reasons of visit of MR to the market	.655	.752	1.000	.257	-.183
	Qualification of the MR	.456	.308	.257	1.000	-.412
	Years of experience in this market	-.281	-.193	-.183	-.412	1.000
Sig. (1-tailed)	Opinion about Doctor and MR relationship		.000	.000	.000	.000
	Perception on prescription behaviour	.000		.000	.000	.001
	Reasons of visit of MR to the market	.000	.000		.000	.002
	Qualification of the MR	.000	.000	.000		.000
	Years of experience in this market	.000	.001	.002	.000	

Communalities

	Initial	Extraction
Opinion about Doctor and MR relationship	1.000	.821
Perception on prescription behaviour	1.000	.878
Reasons of visit of MR to the market	1.000	.794
Qualification of the MR	1.000	.684
Years of experience in this market	1.000	.743

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.811	56.221	56.221	2.811	56.221	56.221	2.436	48.726	48.726
2	1.107	22.138	78.359	1.107	22.138	78.359	1.482	29.633	78.359
3	.585	11.704	90.063						
4	.316	6.326	96.389						
5	.181	3.611	100.000						

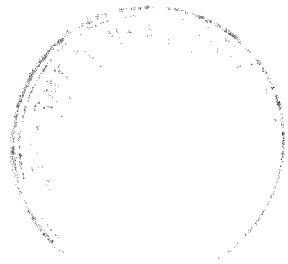
Extraction Method: Principal Component Analysis.

Rotated Component Matrix (a)

	Component	
	1	2
Opinion about Doctor and MR relationship	.848	.318
Perception on prescription behaviour	.928	.128
Reasons of visit of MR to the market	.887	.078
Qualification of the MR	.256	.786
Years of experience in this market	-.054	-.860

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 3 iterations.



5.37.2 Factor Analysis for *eighteen* construct variables

The Factor Analysis was again run on the *eighteen construct* variables, which are mentioned above the analysis, to know the overall factors that emerge and contributes to the medical representative's behaviour.

It can be seen from the correlation matrix, that variables V6'*doctor trusts me and so he/she is more inclined to prescribe my medicine brands*' has relatively high correlation with the variables V5 '*doctors consider medical representatives as important source of information*' (0.711) and V9 '*doctors are more likely to prescribe my medicine brands, if I possess adequate knowledge*' (0.693). The variable construct V7 '*when a doctor accepts gifts/obligation from me, he/she is obliged to prescribe my medicine brands*' is showing a slightly fair correlation with V8 '*when a doctor accepts samples from me, he/she is obliged to prescribe my medicine brands*' (0.582). The variable V10 '*doctor generally prefer those medical representatives who provides genuine information about their medicine brands*' has relatively high correlation with the construct variables V11 '*doctors are generally price conscious when they prescribe medicine brand(s) to their patients*' (0.714) and V9 '*doctors are more likely to prescribe my medicine brands, if I possess adequate knowledge*' (0.845). Similarly, V12 '*aggressive promotions from the company may influence the prescription behaviour of doctors*' and V13 '*samples, gifts and other obligations from the company does influence the prescription behaviour of doctors*' are showing a relatively strong correlation (0.788). The construct variable V14 '*frequent visits to the doctor normally influence their prescription choice for the medicine brands*' is showing a relatively strong correlation with V17 '*medical representatives visit*

to the market to assist sales group' (0.652).

Communalities for all the *eighteen* construct variables were one and thus were inserted in the diagonals of the correlation matrix for further analysis.

Initial Eigenvalues of the *four factors* explaining the total variance are more than one and therefore all the *four factors* are included in the final analysis. *Factor 1* account for a variance of 6.922, which is 38.456% of the total variance explained by the four factors. *Factor 2* accounts for a variance of 1.896 and explaining 10.533% of total variance. Similarly, *Factor 3* accounts for a variance of 1.515, which is 8.414% of the total variance and *Factor 4* accounts for a variance of 1.359, which is 7.551% of the total variance. Thus, four factors combined together explain *64.954%* of total variance, which is relatively significant.

Rotated component matrix show that factor loadings for *Factor 1* has relatively high factor loadings on the construct variables V5 '*doctors consider medical representatives as important source of information*' (0.799), V6 '*doctor trusts me and so he/she is more inclined to prescribe my medicine brands*' (0.766), V9 '*doctors are more likely to prescribe my medicine brands, if I possess adequate knowledge*' (0.817), V10 '*doctor generally prefer those medical representatives who provides genuine information about their medicine brands*' (0.868), V11 '*doctors are generally price conscious when they prescribe medicine brands to their patients*' (0.815), V12 '*aggressive promotions from the company may influence the prescription behaviour of doctors*' (0.788), V13 '*samples, gifts and other obligations from the company does influence the prescription behaviour of*

doctors' (0.730), V14 '*frequent visits to the doctor normally influence their prescription choice for the medicine brands*' (0.827), V15 '*visiting doctors to insist them to prescribe my medicine brands*' (0.605), V16 '*visiting pharmacists to insist them to stock my medicine brands*' (0.333), V17 '*medical representatives visit to the market to assist sales group*' (0.690) and V18 '*visit territories at regular intervals to monitor the performance*' (0.738). Therefore this factor is labeled as '**influencers to the prescription behaviour**'. *Factor 2* is relatively related high with variables V7 '*when a doctor accepts gifts/obligation from me, he/she is obliged to prescribe my medicine brands*' (0.847) and V8 '*when a doctor accepts samples from me, he/she is obliged to prescribe my medicine brands*' (0.826). Thus, this factor is labeled as '**medicine brand obligation**'. Similarly, *Factor 3* has relatively high factor loadings on the variables V3 '*average doctor calls per day*' (0.605) and V4 '*interaction with the doctor*' (0.635). Thus, this factor is labeled as '**relationship with the doctor**'. *Factor 4* has relatively high coefficients for variables V1 '*size of the company*' (0.797) and V2 '*number of years in the profession*' (0.227). Thus, this factor is labeled as '**professional strength**'.

Inference:

Out of the original *eighteen constructs* variables, *four factors* were extracted which were named as:

1. Influencers to the prescription behaviour.
2. Medicine brand obligation.
3. Relationship with the doctor.
4. Professional strength.

Medical representatives, who provide genuine information about their medicine brands and possess adequate knowledge, are more likely to receive doctor prescriptions for their set of medicine brands for a specific disease. Doctors, apart from the efficacy of the drug also look at their cost, while prescribing the medicine brands for a specific disease. Promotions, gifts, samples and other obligations offered by the drug company does influence the doctors in their prescription behaviour. Frequency of visits of medical representative help in gaining trust of the doctor which, in turn, sets the final choice of medicine brands for prescription for a specific disease.

Medical representatives visit doctors to insist them for prescribing their medicine brands for a specific disease and meet pharmacists regularly to push their stock of medicine brands in their store. Medical representatives visit their sales territories regularly to assist the sales team and monitor their performance.

Correlation Matrix

		V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18
Correlation	V1	1.000	-.004	.115	.195	.156	.277	-.141	-.204	.390	.371	.152	.400	.275	.220	.064	.001	.244	.080
	V2	-.004	1.000	-.227	.016	-.265	-.138	-.215	-.204	-.109	-.126	-.219	-.114	-.096	-.101	-.109	-.070	-.040	-.364
	V3	.115	-.227	1.000	.211	.213	.232	-.017	.016	.157	.184	.204	.117	.081	.252	.137	-.087	.199	.196
	V4	.195	.016	.211	1.000	.041	.159	-.009	-.162	.188	.051	-.123	-.074	-.085	.105	-.065	-.174	-.015	.021
	V5	.156	-.265	.213	.041	1.000	.711	.024	-.091	.646	.649	.684	.509	.532	.633	.426	.093	.503	.500
	V6	.277	-.138	.232	.159	.711	1.000	-.077	.007	.693	.644	.614	.549	.454	.617	.481	.199	.414	.482
	V7	-.141	-.215	-.017	-.009	.024	-.077	1.000	.582	-.368	-.341	-.122	-.162	-.158	-.325	-.129	-.051	-.163	-.113
	V8	-.204	-.204	.016	-.162	-.091	.007	.582	1.000	-.238	-.181	-.020	-.032	-.120	-.240	.047	.109	-.168	.022
	V9	.390	-.109	.157	.188	.646	.693	-.368	-.238	1.000	.845	.637	.671	.634	.787	.335	.172	.554	.504
	V10	.371	-.126	.184	.051	.649	.644	-.341	-.181	.845	1.000	.714	.707	.621	.781	.386	.313	.635	.582
	V11	.152	-.219	.204	-.123	.684	.614	-.122	-.020	.637	.714	1.000	.561	.508	.637	.415	.315	.525	.476
	V12	.400	-.114	.117	-.074	.509	.549	-.162	-.032	.671	.707	.561	1.000	.788	.660	.436	.380	.567	.534
	V13	.275	-.096	.081	-.085	.532	.454	-.158	-.120	.634	.621	.508	.788	1.000	.612	.429	.324	.499	.420
	V14	.220	-.101	.252	.105	.633	.617	-.325	-.240	.787	.781	.637	.660	.612	1.000	.337	.110	.652	.532
	V15	.064	-.109	.137	-.065	.426	.481	-.129	.047	.335	.386	.415	.436	.429	.337	1.000	.155	.295	.509
	V16	.001	-.070	-.087	-.174	.093	.199	-.051	.109	.172	.313	.315	.380	.324	.110	.155	1.000	.242	.225
	V17	.244	-.040	.199	-.015	.503	.414	-.163	-.168	.554	.635	.525	.567	.499	.652	.295	.242	1.000	.456
	V18	.080	-.364	.196	.021	.500	.482	-.113	.022	.504	.582	.476	.534	.420	.532	.509	.225	.456	1.000

Sig. (1-tailed)																			
	V1		.476	.034	.001	.007	.000	.013	.001	.000	.000	.008	.000	.000	.000	.158	.491	.000	.104
	V2	.476		.000	.400	.000	.015	.000	.001	.043	.023	.000	.036	.065	.056	.043	.135	.265	.000
	V3	.034	.000		.000	.000	.000	.392	.403	.006	.002	.001	.032	.101	.000	.015	.085	.001	.001
	V4	.001	.400	.000		.259	.006	.441	.005	.001	.211	.026	.121	.090	.048	.151	.003	.407	.372
	V5	.007	.000	.000	.259		.000	.351	.076	.000	.000	.000	.000	.000	.000	.000	.070	.000	.000
	V6	.000	.015	.000	.006	.000		.113	.457	.000	.000	.000	.000	.000	.000	.000	.001	.000	.000
	V7	.013	.000	.392	.441	.351	.113		.000	.000	.000	.027	.005	.006	.000	.021	.209	.005	.037
	V8	.001	.001	.403	.005	.076	.457	.000		.000	.002	.377	.307	.029	.000	.229	.043	.004	.363
	V9	.000	.043	.006	.001	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.003	.000	.000
	V10	.000	.023	.002	.211	.000	.000	.000	.002	.000		.000	.000	.000	.000	.000	.000	.000	.000
	V11	.008	.000	.001	.026	.000	.000	.027	.377	.000	.000		.000	.000	.000	.000	.000	.000	.000
	V12	.000	.036	.032	.121	.000	.000	.005	.307	.000	.000	.000		.000	.000	.000	.000	.000	.000
	V13	.000	.065	.101	.090	.000	.000	.006	.029	.000	.000	.000	.000		.000	.000	.000	.000	.000
	V14	.000	.056	.000	.048	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.041	.000	.000
	V15	.158	.043	.015	.151	.000	.000	.021	.229	.000	.000	.000	.000	.000	.000		.007	.000	.000
	V16	.491	.135	.085	.003	.070	.001	.209	.043	.003	.000	.000	.000	.000	.041	.007		.000	.000
	V17	.000	.265	.001	.407	.000	.000	.005	.004	.000	.000	.000	.000	.000	.000	.000	.000		.000
	V18	.104	.000	.001	.372	.000	.000	.037	.363	.000	.000	.000	.000	.000	.000	.000	.000	.000	

Communalities

	Initial	Extraction
V1	1.000	.700
V2	1.000	.454
V3	1.000	.461
V4	1.000	.608
V5	1.000	.683
V6	1.000	.654
V7	1.000	.768
V8	1.000	.721
V9	1.000	.824
V10	1.000	.832
V11	1.000	.673
V12	1.000	.799
V13	1.000	.669
V14	1.000	.777
V15	1.000	.436
V16	1.000	.508
V17	1.000	.519
V18	1.000	.606

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.110	39.501	39.501	7.110	39.501	39.501	6.922	38.456	38.456
2	1.993	11.069	50.570	1.993	11.069	50.570	1.896	10.533	48.989
3	1.534	8.520	59.090	1.534	8.520	59.090	1.515	8.414	57.404
4	1.056	5.864	64.954	1.056	5.864	64.954	1.359	7.551	64.954
5	.886	4.920	69.874						
6	.815	4.529	74.403						
7	.773	4.292	78.695						
8	.766	4.257	82.952						
9	.628	3.489	86.441						
10	.524	2.912	89.353						
11	.509	2.827	92.179						
12	.332	1.847	94.026						
13	.287	1.594	95.620						
14	.213	1.183	96.804						
15	.170	.947	97.751						
16	.155	.859	98.609						
17	.143	.794	99.404						
18	.107	.596	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix (a)

	Component			
	1	2	3	4
V1	.234	-.077	.060	.797
V2	-.295	-.489	-.277	.227
V3	.282	.121	.605	-.032
V4	-.031	-.058	.635	.448
V5	.799	.100	.186	-.001
V6	.766	.098	.165	.173
V7	-.212	.847	.024	.070
V8	-.075	.826	-.157	-.090
V9	.817	-.238	.090	.301
V10	.868	-.184	-.033	.209
V11	.815	.041	-.059	-.059
V12	.788	.015	-.283	.313
V13	.730	-.053	-.286	.226
V14	.827	-.254	.128	.107
V15	.605	.048	-.035	-.256
V16	.333	.144	-.611	.047
V17	.690	-.143	-.068	.134
V18	.738	.098	.089	-.208

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 5 iterations.