Identification and Analysis of Factors Influencing Preferences for Green Products: A Study In and Around Kolkata (India)

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Abstract

Since the concept of environmental consciousness has become a necessity to save the mankind, promoting consumption of green products is the need of hour, owing the fact that green products are environment friendly or sustainable products and are organic in nature. It is evident that the feeling for the health of environment and consumers, the usage of green products is emerging at the cost of traditional or conventional products. However, the magnitude of usage of green products is much behind the ideal one to safeguard the consumers and environment at large. Thus stretching the incidence and depth of usage of green products is a must. In order to achieve this objective, it is necessary to know the factors which insisted the users to go for the green products so that the same can be ventilated to the masses for extending the consumer base for the green products. On this backdrop, this study will be undertaken to collect responses from the green product users in and around Kolkata to find out the significant factors which contribute for the popularity of the Green products. The study will also try to find out the impact of different demographic and psychographic variables with respect to popularity of green products. The findings of the proposed research will help the organizations identify the key factors leading to the more acceptability of the green products in the Indian market. Also, it will help all the concerned persons to identify the factors which act as barriers for green products popularity. Thereupon, the organizations can work upon to overcome those barriers.

Key Words: Green Products, Factors, Kolkata, Demographic and Psychographic Variables
Introduction

From the last decade onwards people became more concerned about their health as a result of which they are using more of green products. Now, green products can be stated as having less of an impact on the environment and are less damaging to human health than traditional products, and hence are also called as sustainable or environment friendly product. Green products are formed from recycled components, be manufactured in a more energy-conservative way, or be supplied to the market with more environmental friendly way [1]. So, people are becoming more aware about the concept of environmental consciousness. This reduces the usage of traditional or conventional products. Traditional products are those manufactured in the traditional way. They are not being produced keeping environmental considerations in mind. In today’s competitive scenario green products are competing with the conventional or regular products (products produced by traditional methods). But, this usage pattern is not applicable to all parts of the society. Knowledge and awareness about the green products play a very vital role in enabling the customers to use them. But, this awareness and knowledge do not exist, thus restricting the usage of the green products. From the last decade onwards, we have started using the green products and it will take time before it penetrates to all parts of the society. In comparison to the conventional products, green products are generally biodegradable, non-toxic in nature and more environment friendly. In their book “The Green Consumer”, John Elkington, Julia Hailes, and John Makower discussed several characteristics that a product must have to be regarded as a "green" product. They contended that a green product should not endanger the health of people or animals, damage the environment at any stage of its life, including manufacture, use, and disposal, consume a disproportionate amount of energy and other resources during manufacture, use, or disposal, cause unnecessary waste, either as a result of excessive packaging or a short useful life, involve the unnecessary use of or cruelty to animals and use materials derived from threatened species or environments.

The concept of green products is becoming more popular with the aspect of food items. Since people are becoming more health conscious, they are giving more importance to the consumable products. People started using more green products to minimize their health risk. But, here also like normal green products knowledge and awareness is not there in all parts of the society. So, these are more being used by the more knowledgeable parts of the society. Also, organizations and government are incapable of promoting the concept of “Green”. But the best part is the concept has started and it is penetrating to the society at a very fast pace. If all the factors which contribute to the popularity of green food items, such as price of the product, its quality, customer’s perception about the products, awareness about them, are being handled carefully by the government and the organizations, then green food items will become more popular in the society.

The concept of green products, specifically green food items can be popular only if organizations understand the concept of green marketing. But to define green marketing is not an easy task.
While green marketing came into prominence in the late 1980s and early 1990s it was first discussed much earlier. The American Marketing Association (AMA) held the first workshop on "Ecological Marketing" in 1975. The proceedings of this workshop resulted in one of the first books on green marketing entitled "Ecological Marketing" [3].

"Green or Environmental Marketing consists of all activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants, such that the satisfaction of these needs and wants occurs, with minimal detrimental impact on the natural environment."[4]

According to Pride and Ferrell (1993) Green marketing, also alternatively known as environmental marketing and sustainable marketing, referring to an organization’s efforts at designing, promoting, pricing and distributing products that will not harm the environment [5]. Polonsky (1994) defines green marketing as the activities designed to generate and facilitate any exchanges occurred to satisfy human needs or wants, such that the satisfaction of these needs and wants occurs, with minimal negative impact on the natural environment [3].

Green marketing is a business practice that takes into account customer concerns about the natural environment. Green marketing campaigns highlight the different environmental protection characteristics for a company's products and services [2]. The green marketing strategies include reduced waste in packaging (Elkington and Makower 1988; Wasik 1996), increased energy efficiency of the product in use Metcalf (2008) and Sue Wing (2008), reduced use of chemicals in farming, or decreased release of toxic emissions and other pollutants in production (Sumathi & Hung, 2006). Organizations have responded to the growing customer demand for environment-friendly products in several ways, thus making the various components of green marketing. These include: 1) promoting the environmental characteristics of products; 2) introducing new products for the consumers concerned with energy efficiency, waste reduction, sustainability, and climate control, and 3) redesigning existing products to satisfy these same consumers [2].

Green products are slowly gaining popularity as people are becoming more health conscious. In our study green products will be considered as equivalent to organic products. These products will be produced by using organic fertilizers, without using any pesticides, insecticides, any inorganic fertilizers or toxic elements. So, these products will be healthier in nature and safe to use.

**Relevance of the Topic**

Green marketing and green products are gaining popularity as we are progressing. People are becoming health conscious which leads to popularity of green items. But, with respect to India, not much of systematic research happened. So, with respect to existing literature from across the world, there are many factors which can affect the green products popularity. So, the proposed research will try to identify the factors for green products’ popularity specifically in Indian
context. Also, by understanding these facts the organizations’ can improve their strategy for making the green products more sellable.

Objective/s and scope

In the following study, we will be concerned about the factors which will contribute for the popularity of green products in India. There are various categories of green products, such as food, health and beauty, consumer durables, paints and furnishings, paper and cleaning products etc. The various attributes which will be contributing for green products popularity are demographic, psychographic, product specific and external variables. We will be selecting the factors from the existing literature and the exploratory study. Then the results with respect to India will be compared with the results from the existing literature to derive the significant characteristics for green products popularity in India.

Concepts/Theories/Philosophies

In the proposed research, we intend to examine the impact of individual attributes of customers towards marketing of green food products. In the Indian context, green products are still consumed by a very small subset of customers and the consumption is largely dependent on individual attributes, i.e. demographic and psychographic characteristics (Harper and Makatouni, 2002; Ahmed and Juhdi, 2010). Impact of these characteristics is more evident for green food product segment (Davies et al, 1985; Lea and Worsley, 2005). In the following section, we summarize the findings by published literature on these issues followed by some interesting research gaps to explore.

The demographic variables are related to the basic characteristics of a person such as age, gender, income etc. which affect the consumer buying behavior. With respect to green products, the various demographic variables which affect customer’s attitude towards green food products are age, gender, household income, education, social class, etc. The age of the customers affected significantly the purchasing of organic food products(Davies et al, 1985). Similar observations were reported in some other papers (e.g. Lea and Worsley, 2005) where impact of age on customer’s belief about the organic food products was established. Middle-aged persons have a strong positive belief about the effects of organic items which they consider as an alternative of conventional food products(Lea and Worsley, 2005). Household income also positively influences consumption and purchasing of organic foods as reported in several papers(Davies et al, 1995; Lea and Worsley 2005; Chinnici et al, 2002). Also it was examined that the composition of a family infer that households with children and specifically women members of those families prefer buying more green food items than that of the household without children(Davies et al, 1985). The higher formal educational level also positively influences the purchasing behavior for organic food items (Lockie et al, 2002; Ahmed and Juhdi, 2010). This is
because more education makes the consumers more aware about the environment which will ultimately influence their purchasing behavior.

We have found from the above discussion that, green food product consumption is being studied based upon some basic demographic variables. Since income of the consumer plays a pivotal role in green food product consumption, it can be further studied along with the effects of occupation. This aspect was examined on the consumers buying behavior but not on green food products (Cline et al., 2006). Also, no study has been made regarding the impact of cultural aspects (Razzaque, 1995) on green food product consumption. So, the study can be made in finding out the relationship between consumption of green foods items and occupation and cultural background of the customers.

From the existing literature, psychographics is being defined as the study of personality, values, attitudes, interests, and lifestyles (Senise, 2007). This mainly focuses on interests, activities and opinions (IAO) of the customers. Hence psychographic variables can be interpreted as combinations of demographic and psychological variables which impact customer’s attitude in an overall manner.

It was observed that there is a general perception about organic food products catering mainly for higher social classes (Harper and Makatouni, 2002). It is further stated in the same paper that people from those classes have an affordability as well as consciousness regarding organic products, thus resulting in green food product consumption. Few authors have also discussed about people’s tendency towards safe and healthy organic products intake influencing positively the customers’ intention to purchase them (Ahmed and Juhdi, 2010). Also, (Davies et al., 1995; Lea and Worsley 2005) in their paper referred that green consumers prefer buying organic food products for their health concern. So, health is an important factor driving the customers for green food product consumption. Contradictory results are also published in a paper by Pickett-Baker and Ozaki (Pickett-Baker and Ozaki, 2008), where authors fail to conclude any positive correlation between positive environmental beliefs and propensity of the customers to go for buying more green products.

Environmental knowledge and attitude play a significant role in customers’ tendency for green food product purchasing as reported in several papers. Many authors stated that environmental consciousness generates more interest of the customers towards organic products (Schlegelmilch et al., 1996). Kaiser et al (1999) in their paper reported that environmental values and environmental knowledge are important factors which affect ecological behavior intention ultimately helping in building customer’s attitude towards organic products. Also Ahmed and Juhdi (2010) referred that customers are positively inclined towards environment friendly farming because of their environmental consciousness and it leads to positive customer intention to buy organic products. Lockie et al., (2002), said that the consumers’ familiarity with the green products, generate more interest to consume them. This is common to conventional consumer’s behavior. They also stated that the mood of the consumers, i.e., to keep him relax is positively
correlated with organic food consumption. The customers believe that consuming organic food items make customers stress-free.

Apart from health consciousness and environmental belief, several other psychographic variables are also tested in literature like customers belief towards information authenticity, political motivation, skepticism etc. Kozup et al (2003) said that more proper information from credible sources increase the consumption of organic food products because of customers’ environmental belief and authenticity of the information provided. Similar observation was reported by Schlegelmilch et al (1996), by inferring that more knowledge, i.e., detail factual information about the organic products improve the chance of customers’ buying them. Also, it was said that the customers’ previous experience of using some environmental brands i.e., the brands which produce the products in environment-friendly way have an impact on their chances of selecting those brands only for repeated usage (Pickett-Baker and Ozaki, 2008). In another paper, it is being stated that recycling activities positively influences pro-environmental purchasing behavior for those customers who can dedicate more time and effort (Schlegelmilch et al, 1996).

Same papers also stated that politically motivated activities act positively only for those customers who are environmentally conscious. In the paper by Chang (Chang , 2011), it is being discussed that perceived higher price, lower quality and skepticism negatively and perceived emotional benefits acting positively will create more ambivalence attitudes of the customers towards buying green products.

From the above discussion we conclude that the relationship between environmental consciousness, beliefs and knowledge and green product usage had been studied, but not for green food products. So, we intend to investigate more the role of the above mentioned factors in creating customers attitude towards green food products. Also the effect of information level about the food items in forming green food product consumer behavior is also an interesting research area. No study had taken place to find out the impact of lifestyle, religiosity, social responsibility, risk taking characteristics (Razzaque, 1995) of the customers towards organic food consumption, although these variables are applied in other fields. So, this study can be further extended to find out the effect of the above mentioned variables on building customers behavior towards organic food consumption.

In addition to demographic and psychographic variables, the different product specific variables affect the customers’ attitude towards green products. The various variables discussed in the literature are environmental brands, brand name, product type (Green vs. non-green), preferences for green attributes for the products, green technology, energy savings. Whereas, with respect to green food products, Heart healthy claim on food products, nutritional information about the food products, nutritional content of the alternative products, price, product types (fresh fruit, fresh vegetables, meat, milk and dairy products, cereals and cereal products) were discussed in the literature.
In the paper by Pickett-Baker and Ozaki (2008), the author stated that environmental brands, i.e., the brands which produces the products in environmental-friendly manner will positively influences customers green product purchase decision. In his paper, Mobley et al (1995) reported that only branded green products create positive impression in the minds of the customers. Lin and Chang, 2012 had said that green or non-green products affect the environmental conscious customers’ usage amount for the products. Olson (2012) stated that using green technology consumers use more products with energy efficiency. He also stated that energy savings characteristics of the products positively influences customers attitude towards green products.

Kozup et al (2003) stated in their paper that heart healthy claim, nutritional information on the food products partially affect consumer’s evaluation of the packaged food products. Also, nutritional content of the alternative food items negatively influences consumer’s evaluation of packaged food items. In other papers the authors discussed about the negative effect of price towards organic food consumption. So, price is a significant barrier for customer’s attitude formation towards green food products consumption (Lockie et al, 2002).

From the above discussion, we find out that only environmental branded products impact customers’ attitude. But the work can be extended by studying the role of environmental brands on green product consumption and how unbranded green products impact customers’ attitude towards green food products. Also from the exploratory survey we found out that if the organizations reduce the price of green food products, its popularity can increase. So, an interesting research area can be finding the role of price in green food product consumption.

In addition to the demographic, psychographics and product specific variables, there are various external, i.e., environmental variables which leads to specific customer behavior. From the reviewed literature it was found that customer’s attitude towards green food products is being affected by information people have about organic products, tasty, availability, expensive, food value, natural content, animal welfare, convenience, environmental protection, food production method, source of information, purchasing place(hypermarket, supermarket, organic stores, farms), purchasing difficulties(difficult to find, high prices, poor range of choice), word of mouth, marketing communications, information about green products, claim Type.

Ahmed and Juhdi (2010) had discussed that information people have about organic food products negatively influences customer’s purchase intention towards the products. But in another paper, the authors had reported that more information people have about the products, the more customers will be interested to consume them(Chinnici et al , 2002). Again, Lin and Chang (2012) stated that only the positive information about the products influences positively user’s perception of the effectivity of the green products. Also, Pickett-Baker and Ozaki(2008) also stated that effective marketing communications, i.e., communicating all the desired information about the product influences positively consumers’ green product purchase decision. He had also reported that word of mouth communication is the most effective tool to convince the customers about the positive aspects of green products. Chang (2011) had stated that the
claims organizations make about the products have a positive impact towards ad believability only if they are from authorized sources. Lea and Worsley (2005) had reported that organic food products tastes better than conventional products and availability and expense customers have to bear for these acts as barriers towards creating consumers belief about organic food items. Harper and Makatouni (2002) have concluded that more environmentally friendly food production method generates positive customers’ perception about the products. Again more food value creates more positive belief about the products. More natural content for the organic food items, concern for animal welfare and environmental protection creates more customers’ interest towards these products (Lockie et al., 2002). And the customers buying more organic food items from hypermarket, organic stores and farms where they are more motivated towards buying them by the overall environment.

From the above discussion, we can see that different papers have reported varied roles of information in creating customers attitude towards green products. So, this inconsistent relationship can be tested with respect to green food items. Also, the study can be further extended to find out the most effective way the organizations can use to convince the customers. Some papers and from the exploratory study, we can find out that taste sometimes positively and sometimes negatively influences green food product consumption.

Variables used in Green Products and Green Food Products marketing

**Independent Variable Classification:**

<table>
<thead>
<tr>
<th>Product Specific Variables</th>
<th>Green Products</th>
<th>Green Food Products</th>
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</thead>
<tbody>
<tr>
<td>1. Environmental brands</td>
<td></td>
<td>1. Heart healthy claim on food products</td>
</tr>
<tr>
<td>2. Brand name</td>
<td></td>
<td>2. Nutritional information about the food products</td>
</tr>
<tr>
<td>3. Product type (Green vs. non-green)</td>
<td></td>
<td>3. Nutritional content of the alternative products</td>
</tr>
<tr>
<td>4. Preferences for green attributes for the products</td>
<td></td>
<td>4. Price</td>
</tr>
<tr>
<td>5. Green technology</td>
<td></td>
<td>5. Product types(fresh fruit, fresh vegetables, meat, milk and dairy products, cereals and cereal products)</td>
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<tr>
<td>6. Non-green attributes</td>
<td></td>
<td></td>
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<tr>
<td>7. Energy savings</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Individual Variables</th>
<th>Green Products</th>
<th>Green Food Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Environmental beliefs</td>
<td></td>
<td>1. People’s belief about organic products to be safe</td>
</tr>
<tr>
<td>2. General environmental behavior</td>
<td></td>
<td>2. People’s belief about organic products to be healthy</td>
</tr>
<tr>
<td>3. Experience of using the brands</td>
<td></td>
<td></td>
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<tr>
<td>4. Self-perception of knowledge</td>
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</tbody>
</table>
5. Environmental consciousness
6. Recycling behavior
7. Politically-motivated behavior
8. Environmental values
9. Ecological behavior intention
10. Ideologically heterogeneous group
11. General attitude towards the environment
12. Environmental concern
13. Situation specific beliefs
14. Perceived higher price
15. Perceived lower quality
16. Perceived green product utility
17. Perceived consumer effectiveness
18. Skepticism towards green marketing
19. Perceived emotional benefits
20. Attitude Ambivalence Toward Buying Green Products
21. Environmental consciousness
22. Claim Type

3. People’s belief about organic product farming to be environment friendly
4. People’s perception about the worth of buying organic products
5. Health consciousness
6. Taste
7. Sex of the consumers
8. Age of the consumers
9. Household with or without children
10. Household income
11. Self-transcendence personal values (equality, spirituality, forgiving)
12. Environmental protection
13. Weight control
14. Political values
15. Familiarity
16. Mood
17. Religion
18. Education
19. Social class
20. Ethics
21. Mistrust
22. Number of senior citizens
23. Qualification
24. Purchasing difficulties (difficult to find, high prices, poor range of choice)
25. Percentage of food expenditure devoted to organic products
26. Perception of organic prices
27. Willingness to pay for organic products
28. Credibility of the source of information

### External Variables

<table>
<thead>
<tr>
<th>Green Products</th>
<th>Green Food Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Word of mouth</td>
<td>1. Information people have about organic products</td>
</tr>
<tr>
<td>2. Marketing communications</td>
<td>2. Tasty</td>
</tr>
<tr>
<td>3. Information about green products</td>
<td>3. Availability</td>
</tr>
<tr>
<td></td>
<td>4. Expensive</td>
</tr>
</tbody>
</table>
5. Food value  
6. Natural content  
7. Animal welfare  
8. Education  
9. Convenience  
10. Environmental protection  
11. Food production method  
12. Source of information  
13. Purchasing place (Hypermarket, supermarket, organic stores, farms)

**Dependent Variables:**

<table>
<thead>
<tr>
<th>Green Products</th>
<th>Green Food Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Consumer green product purchase decision</td>
<td>1. Intention to purchase organic products</td>
</tr>
<tr>
<td>2. Pro-environmental purchasing behavior</td>
<td>2. Consumers’ Evaluations of Packaged Food Products and Restaurant Menu Items</td>
</tr>
<tr>
<td>3. Ecological behavior intention</td>
<td>3. Purchasing organic foods</td>
</tr>
<tr>
<td>4. Ecological behavior</td>
<td>4. Consumers beliefs about organic foods</td>
</tr>
<tr>
<td>5. Intention to acquire information</td>
<td>5. Consumption of organic foods</td>
</tr>
<tr>
<td>7. Consumer attitude towards recyclable products</td>
<td>7. Purchase of free range products</td>
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<tr>
<td>8. Ambivalent Attitude towards buying green products</td>
<td>8. Consumption of organic products</td>
</tr>
<tr>
<td>9. Discomfort, Brand attitude, Ad Believability, Green Claims Believability</td>
<td></td>
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<tr>
<td>10. Usage amount</td>
<td></td>
</tr>
<tr>
<td>11. Perception of green products effectiveness</td>
<td></td>
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<tr>
<td>12. Choosing green products</td>
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</table>
The Problem statement

Green products, specifically green food items are becoming popular in the society. More environmentally consciousness customers prefer using green products compared to conventional products. There are many factors upon which the Customer attitude and their perception towards the green products will be dependant. Many factors contribute positively, while many act as barriers. It is very important to predict properly the various attributes of green food items which will influence the customers’ decision to select the green food items with respect to conventional products. This will enable the organizations to understand the customers’ utility and expectation from green food products and to strategize properly to make these food items more acceptable in the market.

Hypothesis

H1: Environmental consciousness will positively influence customers’ preference for green products
H2: Price Sensitivity of the customers will negatively influence their preference for green products.
H3: Innovativeness in buying products will influence positively customers’ preference for green products
H4: Product involvement will influence customers’ preference for green products positively
H5: Health consciousness moderates effect on customers’ preference for green products
H6: Safety will positively influence customers’ preference for both green cosmetic and food products
H7: Quality will positively influence customers’ preference for green products
H8: Product effectivity will positively influence customers’ preference for green cosmetic products
H9: Product knowledge will positively influence customers’ preference for green cosmetic and food products
H10: Information about the product will positively influence customers’ preference for green cosmetic and food products
H11: Price of the green products will positively influence customers’ preference for green cosmetic and food products
H12: Branded green products will positively influence customers’ preference for green cosmetic and food products
H13: Availability of the products will positively influence customers’ preference for green cosmetic and food products
H14: Green food products are tastier than traditional products
H15: Nutritional value of the products will positively influence customers’ preference for green food products
H16: Look of the green food products will positively influence customers’ preference for them

Methodology

We will be using a combination of experimental and survey based analysis. At first we conducted exploratory study both for focused group with detailed interview techniques. From this we will be trying to find out the variables contributing towards attitude for green products. Now combining the variables from the exploratory study and from reviewed literature, we will be designing a questionnaire to conduct a survey to understand in details the contributing factors in attitude building for green products. After this we will be conducting experimental analysis, to find out the relationship between the different independent and dependant variables.

Data proposed to be collected

The projected research work will be based on both primary and secondary data. The literature review which is a source of secondary data will help us to find out the various dependant and independent variables. Also, from the exploratory study, we are trying to identify the various variables having an effect on customers’ attitude towards green products. The survey and the experimental study which we will conduct in the course of research work will be based on primary data. Then the collected data will be analyzed using various statistical tools to find out its relevance.

Relevance of Projected Findings

The findings of the proposed research will help the organizations identify the key factors leading to the more acceptability of the green products in the Indian market. Also, it will help all the concerned persons to identify the factors which act as barriers for green products popularity. The customers can be made more aware about the positive aspects of the green products as a result of which they will be accepting these for their daily use.

Challenges / difficulties anticipated taking up the study and how do you propose to address them?

The biggest challenge which will be faced is less awareness about green products among persons from all the spheres of the society. During the exploratory study, many are not aware about the
concept of “green”. If we consider the case of highly educated and respectable persons of the society, some are aware about the green products. But, normal persons are not so much clear about organic or green products. So, the first aspect the organizations need to consider is to make the customers aware and convey them proper message about the green products. The second problem can be improper reply which some respondents can give. But this can be tackled by increasing the sample size. Also, people are not ready to spend their time for the focused group or in-depth interview. For, the survey, mainly online, since they do not need to give much more time, they will respond to the survey questionnaire according to the expectations.

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