CHAPTER V
CONCLUSION

Based on the descriptive graphs:

1. Undergraduates are the most knowledgeable about traditional coffee than postgraduates and high school graduates.

2. Postgraduates know more about coffee myths than high school graduates and undergraduates.

3. High school graduates and undergraduates are more likely to ignore the relationship between coffee consumption and illnesses.

4. All three groups were equally knowledgeable about coffee bean varieties, coffee crop locations, and tools used to grind coffee.

5. High school graduates and undergraduates are knowledgeable about coffee bean quality and green coffee than postgraduates.

Based on the partial least squares path modelling (PLS-PM):

1. There was a weak correlation between education level – coffee drinking habits (0.1014).

2. There was a weak uphill (positive) correlation between education level – coffee knowledge (0.4494).

3. There was very little linear relationship between coffee drinking habits – coffee knowledge (0.0051).

4. Education levels had very little effect on coffee drinking habits.

5. Coffee drinking habit does not define someone's level of coffee knowledge.

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Appendix 1. Questionnaire.

<div align="center">

KUESIONER UNTUK PEMINUM KOPI

</div>

Kuesioner ini dibuat dan diedarkan dengan tujuan untuk mendapatkan informasi selengkap-lengkapnya guna menyelesaikan skripsi saya yang berjudul:

"Hubungan antara tingkat pendidikan dengan kebiasaan minum kopi dan pengetahuan tentang kopi".

Anda diminta untuk menjawab pernyataan-pernyataan yang ada pada kuesioner ini sesuai dengan keadaan, kebiasaan, pendapat, dan perasaan Anda. Jawaban yang Anda berikan hanya akan digunakan untuk kepentingan akademis dan data lengkap Anda tidak akan dipublikasikan.

Kesadaran Anda untuk mengisi kuesioner ini merupakan bantuan yang sangat penting bagi saya dalam menyelesaikan skripsi saya. Untuk itu, saya ucapkan terima kasih.

<div align="center">

KUESIONER

</div>

Nama lengkap   :

Umur   :

Jenis kelamin   :

Pendidikan terakhir   : □ SMA   □ D3/D4 (diploma)/ S1 (sarjana) □
S2 (magister)/ S3 (doktor)

Kebiasaan minum kopi

1. Seberapa seringkah Anda meminum kopi?

    □ < 1 kali sehari

    □ 1 kali sehari

    □ 2 – 3 kali sehari

    □ ≥ 4 kali sehari

2. Kapan Anda biasa meminum kopi? (Pilihan bisa lebih dari satu).

- □ 05:00 – 10:00
- □ 10:00 – 14:00
- □ 14:00 – 18:00
- □ 18:00 – 24:00

3. Berapa jumlah kopi Anda konsumsi dalam sekali minum?

- □ 1 cangkir
- □ 1 mug (100-200 ml)
- □ >200 ml

4. Menurut Anda, rasa kopi harus...

- □ harus pahit
- □ tanpa susu/krim
- □ tidak boleh manis
- □ tidak boleh pahit
- □ dengan susu/krim
- □ harus manis

5. Apakah Anda meminum kopi dengan tambahan pemanis?

- □ susu kental manis
- □ gula pasir
- □ pengganti gula (diabet)
- □ gula merah (aren)
- □ madu
- □ tidak

6. Menurut Anda, penyajian kopi harus...

- □ harus panas
- □ bisa dingin

7. Apa alasan utama Anda meminum kopi?

- □ suka rasanya
- □ menahan kantuk
- □ menghilangkan sakit kepala
- □ menambah stamina
- □ gaya hidup/pergaulan
- □ kebiasaan saja

8. Seberapa sering Anda membeli kopi di luar rumah?

- □ tidak pernah
- □ jarang sekali
- □ 1 kali dalam sebulan
- □ 1 kali dalam seminggu
- □ 1 kali dalam sehari
- □ > 1 kali dalam sehari

9. Ketika membeli kopi di luar rumah, yang Anda pilih adalah (pilihan bisa lebih dari satu)

- □ kopi tubruk
- □ *cappucino*
- □ cafe latte
- □ *Irish coffee*
- □ *Vietnamese style*
- □ *espresso*
- □ kopi lainnya, sebutkan ....

10. Jenis minuman kopi apa yang Anda minum di rumah (pilihan bisa lebih dari satu):

- □ kopi tubruk

□ kopi tubruk + gula

□ kopi tubruk + gula + susu

□ kopi instan original

□ kopi instan 2 in 1

□ kopi instan 3 in 1

□ kopi filter/*French press*

□ *instant white coffee*

□ kopi lainnya, sebutkan ....

11. Varietas tanaman kopi apa yang Anda minum?

□ Arabica

□ Robusta

□ Liberica

□ tidak tahu

□ apapun

Pengetahuan seputar kopi

12. Apakah Anda mengenal kopi tradisional?

□ ya □ tidak

13. Menurut Anda yang termasuk kopi tradisional dari jenis kopi di bawah ini adalah (pilihan bisa lebih dari satu):

□ kopi luwak

□ kopi jos

□ kopi jahe

□ kopi ramuan dengan jagung

□ kopi tubruk

- □ kopi instan
- □ kopi susu
- □ kopi ramuan dengan beras
- □ *cappuccino*
- □ *espresso*
- □ *cafe latte*
- □ kopi sangrai biasa
- □ *white coffee*
- □ kopi racik
- □ kopi rempah
- □ lainnya, sebutkan ....

14. Dari produk yang Anda pilih di atas, aspek apa saja yang Anda anggap tradisional?

- □ proses penyeduhan
- □ kemasan
- □ alat/mesin penyeduh
- □ tempat membeli
- □ nama
- □ alat penyangrai

15. Menurut Anda, apa alasan orang-orang memilih kopi tradisional?

- □ tren
- □ prestise
- □ harga
- □ kenampakan
- □ rasa
- □ iklan

16. Menurut Anda, apa alasan orang-orang memilih kopi modern?

- □ tren
- □ prestise
- □ harga
- □ kenampakan
- □ rasa
- □ iklan

17. Sepengetahuan Anda produsen kerja olahan kopi...

    □ rumah tangga   □ Industri Rumah Tangga   □ pabrikan

18. Sepengetahuan Anda biji kopi bisa diolah dengan sistem...

    □ kering

    □ semi-kering

    □ basah

    □ tidak tahu

19. Sepengetahuan Anda kopi disangrai menggunakan...

    □ wajan tanah

    □ wajan logam

    □ oven

    □ mesin roasting

    □ microwave

20. Sepengetahuan Anda alat penggiling kopi dapat berupa

    □ lumpang

    □ blender

    □ *coffee grinder*

    □ *food processor*

    □ selep

21. Sepengetahuan Anda, penyeduhan kopi dilakukan dengan metode (pilihan bisa lebih dari satu):

    □ perebusan (*boiling*)

    □ perendaman (*steeping*)

    □ penyaringan (*filtration*)

    □ tekanan (*pressure*)

22. Mitos adalah keyakinan, gagasan, atau ide yang dipercaya tetapi bukan merupakan fakta. Dari pilihan- pilihan di bawah ini, mana yang Anda ketahui sebagai mitos?

   □ penyebab bayi lahir dengan berat rendah

   □ penurun berat badan

   □ sebagai diuretik dan obat pencahar

   □ penyebab keguguran

   □ anti-kantuk

   □ *mood booster*

23. Menurut Anda ada hubungan antara konsumsi kopi dengan (pilihan bisa lebih dari satu):

   □ penyakit jantung

   □ osteoporosis

   □ adiksi/ketergantungan kopi

   □ kanker

   □ lambung/maag

   □ keracunan kopi

   □ tekanan darah tinggi

   □ insomnia

   □ tidak ada hubungan

24. Setelah mendengar tentang kemungkinan adanya hubungan konsumsi kopi dengan penyakit atau gangguan di atas maka Anda...

   □ ingin berhenti

   □ berusaha mengurangi

   □ tetap minum (tidak peduli)

   □ tetap minum (tidak percaya)

25. Varietas tanaman kopi apa saja yang Anda kenal (pilihan bisa lebih dari satu)?

□ Arabica □ Robusta □ Liberica □ tidak tahu

26. Sepengetahuan Anda lokasi penanaman tanaman kopi adalah

□ gunung

□ pantai

□ rawa

□ tidak tahu

□ lainnya, sebutkan ....

27. Dengan melihat biji kopi apakah Anda bisa menilai kualitasnya?
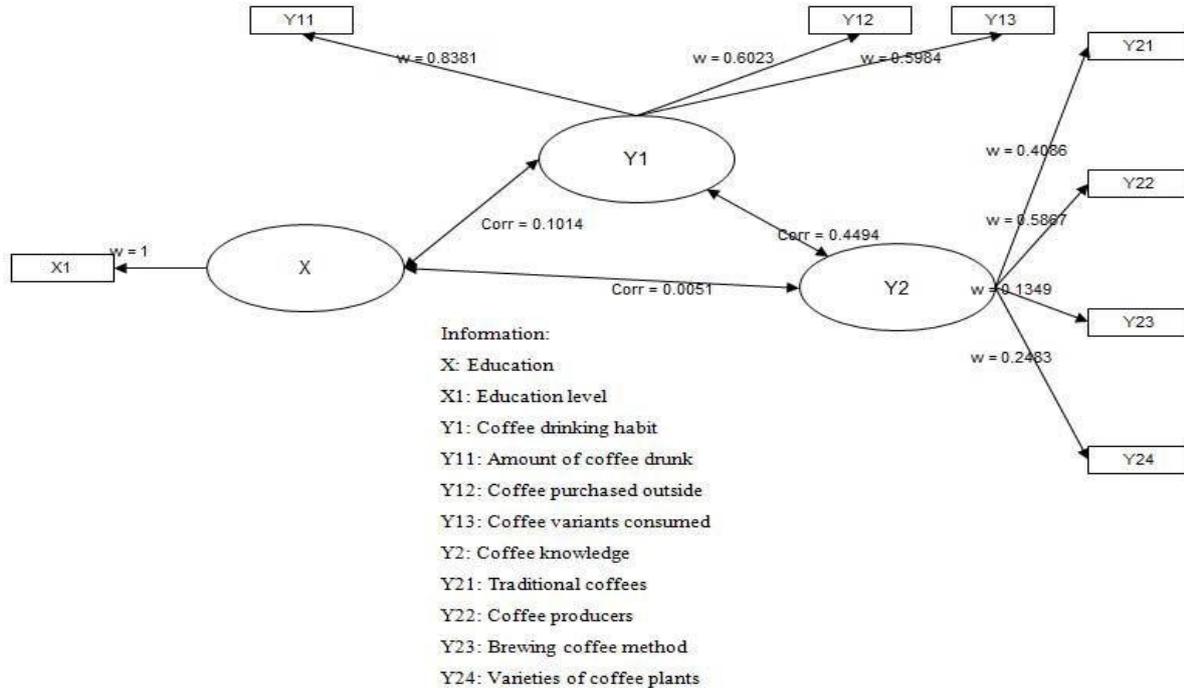
□ ya □ tidak

28. Apakah Anda pernah mendengar tentang "kopi hijau"?

□ pernah mendengar □ tidak pernah dengar

Terima kasih atas partisipasinya dalam survei dan waktu yang telah diluangkan.

Appendix 3. PLS-PM Modelling.

Information:

X: Education

X1: Education level

Y1: Coffee drinking habit

Y11: Amount of coffee drunk

Y12: Coffee purchased outside

Y13: Coffee variants consumed

Y2: Coffee knowledge

Y21: Traditional coffees

Y22: Coffee producers

Y23: Brewing coffee method

Y24: Varieties of coffee plants

Hubungan antara Tingkat Pendidikan dengan Pengetahuan Mengenai Kopi

Correlation between Levels of Education and Knowledge of Coffee

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ABSTRAK

Kopi adalah salah satu minuman yang paling banyak dikonsumsi di dunia. Dengan popularitasnya yang tinggi, sangat mengherankan bahwa sedikit yang tahu tentang hubungan antara tingkat pendidikan dengan kebiasaan minum kopi dan pengetahuan tentang kopi. Penelitian ini dilakukan dari Desember 2016 hingga April 2017, dengan tiga ratus lima belas (315) responden mengambil bagian. Analisis data yang dikumpulkan melibatkan dua metode: grafik deskriptif dan *partial least squares path modeling* (PLS-PM). Dua dari tiga korelasi variabel laten (tingkat pendidikan–kebiasaan minum kopi, dan kebiasaan– pengetahuan tentang kopi) memiliki tingkat korelasi yang sangat lemah (0,1014 dan 0,0051, berturut-turut), sementara satu (tingkat pendidikan–pengetahuan tentang kopi) memiliki tingkat korelasi yang sedang (0,4494). Penelitian ini diharapkan akan memberi informasi kepada masyarakat umum tentang hubungan antara tingkat pendidikan, kebiasaan minum kopi, dan pengetahuan tentang kopi.

Kata kunci: tingkat pendidikan, kebiasaan minum kopi, pengetahuan kopi

ABSTRACT

Coffee is one of the most consumed drinks in the world. With its stellar popularity, it is astonishing that little has been said about the relationship between education levels with coffee drinking habits and coffee knowledge. This research was carried out from December 2016 to April 2017, with three hundred and fifteen (315) respondents taking part. Analysis of the gathered data involved two methods: descriptive graphs and partial least squares path modelling (PLS-PM). Two of the three latent variable correlations (education level–habits, and habits–coffee knowledge) had very weak levels of correlation (0.1014 and 0.0051, respectively), while one (education level–coffee knowledge) had a moderate level of correlation (0.4494). It is hoped this research will inform the general public about the

relationship between education levels, coffee drinking habits, and coffee knowledge.

INTRODUCTION

Coffee is one of the most consumed drinks in the world. One of the most popular types is instant coffee, made by percolating then spray drying and freeze drying the roasted and ground coffee (Spiller, 1998a).

Coffee itself contains caffeine, which acts as a stimulant. This is the reason coffee is consumed most in the morning or during working hours. Coffee can also stimulate the production of two other stimulating hormones, cortisol and adrenaline. These two hormones are also commonly known as stress hormones. Stress hormones are usually secreted in response to a perceived threat in the environment. This explains why every time we drink a cup of coffee, there is a rise in our heartbeats and a sudden increase of energy. This is part of a fight-or-flight response.

Coffee also has strong antioxidant activity due to the presence of phenols and melanoidins. The antioxidant activity in coffee is affected by the green bean composition and processing methods (Vignoli *et al*., 2011). With increasing roasting degree, there is also a loss of around 40% total antioxidant activity (Cämmerer and Kroh, 2006).

There has been an increasing interest in researching coffee and its effects—both psychological and mental. Peer pressure also has a part in coffee and coffee drinking. Peer pressure is also common amongst teenagers and, to some extent, young adults. An example of this is the growing number of coffee shops or cafes in urban parts of Indonesia, mostly targeted at young adults.

Knowledge is defined as the information, understanding, and skills one gains through education or experience. Accumulated, knowledge should have lasting effects on improving and increasing the general use of reasoning and learning abilities (Glaser, 1984).

Education is subjected to all the interpretations and bureaucratic processes of the system, assessed by tests and exams. Knowledge is subjected to all the individual bias as they are accumulated over time and experience, verified by life and reality, disguised as ―old wives' tales‖ or ―local wisdom‖. Some of these myths persist even in the twenty-first century despite easy access to information. This research aims to gather and examine the public's knowledge of coffee in general, along with the health myths and old wives tales.

RESEARCH METHODS

Place of Research

Gathered data will be analysed in Laboratorium Pengawasan Mutu, using the programme SPSS (Statistical Package for the Social Sciences) Statistics and the results compiled into a bar chart.

Time/Duration of Research

The preliminary research was carried out from January 2017 to March 2017, while the main research will be carried out from May to July 2017.

Research Plan

The questionnaire itself will consist of:
1. age, sex, level of education
2. coffee drinking frequency and amount of coffee
3. types of coffee consumed
4. knowledge and understanding of traditional and modern coffee, and coffee myths

The questionnaire itself will be a mix of open-ended and close-ended questions. This is to expand on some questions. Questions asked will be centred around drinking habits (addition of sugar or milk, cups per day, brand of coffee), their knowledge of coffee in general (types of drinks and bean types (Arabica/Robusta/etc.)), its products, and myths (modern and traditional).

Respondent Stimulation

The responders were minimal high school education level and coffee drinkers. As part of the preliminary research, ten people were asked to complete the questionnaire. The questionnaire was revised. At least three hundred people were randomly chosen to complete the revised questionnaire and the data analysed and compiled into a bar chart. This is known as descriptive statistics.

Descriptive statistics are statistics that quantitatively describe or summarise features of a collection of information (Mann, 1995). Descriptive statistics do not, however, allow us to make conclusions beyond the data we have analysed or reach conclusions regarding any hypotheses we might have made. They are simply a way to describe our data.

Research Design (Figure 1)

The questionnaire itself will be a mix of open-ended and close-ended questions. This is to expand on some questions. Questions asked will be

centred around drinking habits (addition of sugar or milk, cups per day, brand of coffee), their knowledge of coffee in general (types of drinks and bean types (Arabica/Robusta/etc.)), its products, and myths (modern and traditional).

Descriptive statistics are statistics that quantitatively describe or summarise features of a collection of information (Mann, 1995). Descriptive statistics do not, however, allow us to make conclusions beyond the data we have analysed or reach conclusions regarding any hypotheses we might have made. They are simply a way to describe our data.

```
┌──────────────┐      ┌──────────────────┐
│  10 subjects │─────▶│  Questionnaire   │
└──────────────┘      │  (simulation)    │
                      └──────────────────┘
                                │
                                ▼
              ┌──────────┐   ┌──────────────┐
              │ Revision │◀──│ Data analysis│
              └──────────┘   └──────────────┘
                    │
                    ▼
┌──────────────┐  ┌──────────────────┐  ┌──────────────┐
│ 315 subjects │─▶│  Questionnaire   │─▶│ 219 subjects │
└──────────────┘  │  (validation)    │  └──────────────┘
                  └──────────────────┘         │
                           │                   │
                           ▼                   │
                  ┌──────────────────┐         │
                  │  Research data   │◀────────┘
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                           │
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                  ┌──────────────────┐
                  │   Descriptive    │
                  │    narration     │
                  └──────────────────┘
                           │
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                  ┌──────────────────┐
                  │  Interpretation  │
                  └──────────────────┘
```
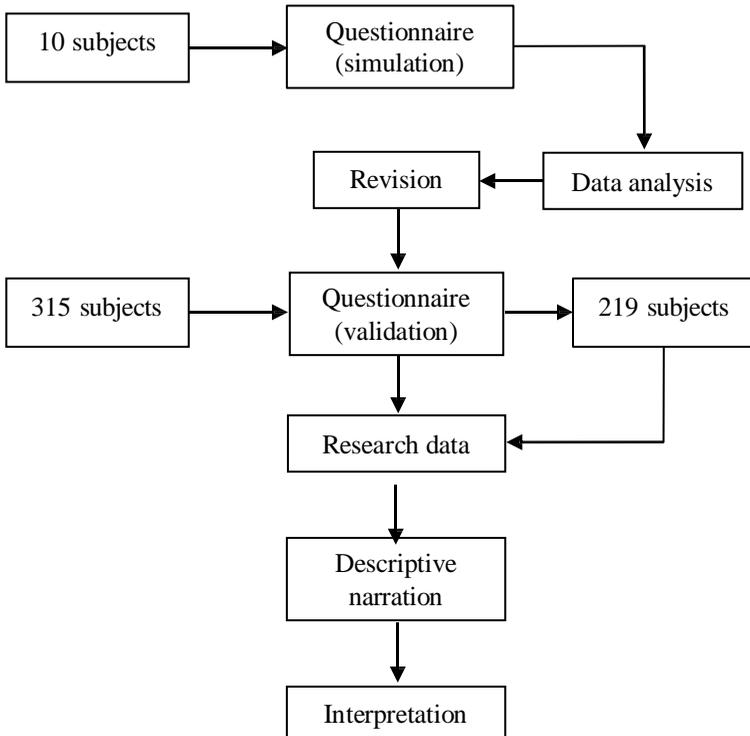
Figure 1. Research design

RESULTS AND DISCUSSION

Analysis of the 219 respondents' gathered responses involved two methods: descriptive graphs and partial least squares path modelling (PLS-PM). PLS-PM is a data analysis approach for studying a set of blocks of observed variables in which each block can be summarised by a latent variable and that linear relations exist between latent variables (Sanchez, 2013). Table 1 shows the results of this research in terms of correlation between latent variables. A latent variable (in this research: education levels, coffee drinking habits, and coffee knowledge) is defined as a variable that is not directly observed but are inferred through a mathematical model from other observable variables.

Table 1. Correlations (latent variables)

	Education level	Coffee drinking habits	Coffee knowledge
Education level	**1.0000**		
Coffee drinking habits	0.1014	**1.0000**	
Coffee knowledge	0.4494	0.0051	**1.0000**

Two of the three latent variable correlations are very weak (education level – habits and habits – coffee knowledge), while the third one (education level – coffee knowledge) had a moderate level of correlation. From this alone, it can be concluded that education levels had very little effect on coffee drinking habits, and habits alone do not define someone's level of coffee knowledge, instead education level does.

As previously stated, the purpose of this study was to know if people were knowledgeable about coffee. The Oxford dictionary defines knowledge as ‗facts, information, and skills acquired through experience or education; the theoretical or practical understanding of a subject'. In this day and age, knowledge is at everyone's fingertips where gadgets are common. Therefore, formal education is not the only place where one can seek out knowledge/information. Training of critical thinking and building up the characters which are formal education's responsibility is beyond the research scope. This is the case with coffee where not everyone is interested in studying coffee in-depth.

This research may be useful to producers in the coffee production field. It may also be important to gauge the relationship between coffee knowledge and education levels in terms of fair-trade coffee. In terms of coffee drinking habits, postgraduate respondents are more likely to drink out of habit, while high school graduate and undergraduate respondents

drink as a means of socialisation, mostly at coffee cafes (in the afternoon or at night).

The difference in drinking times may be due to socialisation habits. Most youths (in this case high school graduate and most undergraduate respondents) are known to socialize more often in the late hours of the day, while older respondents (most postgraduate respondents) tend to stay at home. The drinks they consume differ based on education levels (cappucino for undergraduate and postgraduate respondents, café latte for high school graduates), which in turn has an effect on the amount consumed. When drinking at home, a majority of the three respondent groups drink instant coffee. Instant coffee is easy to make. Instant coffee does not fall into the ―traditional coffee‖ group. Why is this? The Oxford dictionary defines traditional as ―existing in or as part of a tradition; long-established‖ and ―produced, done, or used in accordance with tradition‖. Therefore, traditional coffee is coffee that is made using long-established methods (boiling and so on). Traditional aspects of coffee are important, as evidenced by the majority of the respondents answering brewing process, roasting tool, and brewing machine. These processes are as traditional as it gets. It may have improved over time, but the core of it has not changed much. Traditional coffees (tubruk coffee, ordinary roasted coffee, and luwak coffee) are still popular. This shows that there is still interest in traditional coffee amongst all three respondent groups. Traditional coffees have a distinct edge over modern coffee, with its unique flavour and pricing - which may be cheaper than the average modern coffee. Trend and prestige are popular with modern coffees. The rise in coffee houses in urban areas is partly due to the increasing interest in coffee drinking. It is seen as socially acceptable to drink coffee as a means of socialization. The younger respondents reported to knowing more about traditional coffees. This is accompanied along with the growing habit of drinking coffee and increased interest in foreign coffee.

With an increasing interest in coffee, it is natural one would also have an interest in coffee‘s myths. Even in the twenty-first century, there are countries where myths and wives' tales still prevail, Indonesia being one of them. Combined with a religious upbringing and a distrust of science and modern medicine, it makes for a deadly mix. This is apparent among the older respondents, where over a quarter of them believe coffee is a cause of miscarriage. Gastric disease is a prevalent response among all three respondent groups.

CONCLUSION

1. There was a weak correlation between education level – coffee drinking habits (0.1014).
2. There was a weak uphill (positive) correlation between education level – coffee knowledge (0.4494).
3. There was very little linear relationship between coffee drinking habits – coffee knowledge (0.0051).
4. Education levels had very little effect on coffee drinking habits.
5. Coffee drinking habit does not define someone's level of coffee knowledge.

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