



# Why do entrepreneurs forge alliances?

## ¿Por qué los empresarios forjan alianzas?

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#### ABSTRACT:

The entrepreneur is a businessperson who runs an independent business at his or her own risk. Business independence is an essential feature of entrepreneurs. However, throughout economic history, many entrepreneurs have started a joint business and have successfully developed it over many years. In this article, I will try to answer the question as to when joint endeavours are more effective than individual businesses.

**Keywords:** properties of entrepreneur, trader, engineer, raider, inventor, schemer, alliance

#### RESUMEN:

El empresario es un emprendedor que dirige un negocio independiente bajo su propio riesgo. La independencia empresarial es una característica esencial de los emprendedores. Sin embargo, a lo largo de la historia económica, muchos empresarios han comenzado un negocio conjunto y lo han desarrollado con éxito durante muchos años. En este artículo, intentaré responder la pregunta de cuándo los esfuerzos conjuntos son más efectivos que las empresas individuales.

**Palabras clave:** : propiedades del empresario, comerciante, ingeniero, asaltante, inventor, intrigante, alianza

## 1. Introduction

At the dawn of the time, entrepreneurship emerged in the economy as inter-city and international commerce. Initially, entrepreneurship was a family or a clan business. Later in history, traders who were not bound by family or clan loyalty would forge unions. Such unions were created to protect businesses from various threats. Merchants formed caravans to ward off robbers or to stand up to local lords. Such alliances were temporary and pursued momentary goals. They dissolved as soon as their aims were achieved.

Temporary associations encouraged entrepreneurs to forge business relationships, which would later form the basis of unions, guilds, and alliances. These associations sought to protect businesses from external threats (competitors) or to gain control of the market. Associations pursued various goals. Researchers have emphasized that alliances were important as institutions and contributed to the development of the economy. Sheilagh Ogilvie writes: 'The shared characteristic can be anything: religion, nationality, neighborhood, cultural interests, military service, good works, political convictions' (Ogilvie, 2011, p.19).

Individual and family businesses always remained independent within alliances. In-dependence is rooted in the essence of entrepreneurship. According to a most general definition, '[a]n entrepreneur is one who specializes in taking judgmental decisions about the coordination of scarce resources' (Casson, 1982, p.23). History and the present offer many examples of people

who are not tied by kinship running a business together. They may be friends or partners connected by mutual trust. Whatever the case, they are not running individual businesses. Partners share not only profits and capitals but also risks and the back-breaking labour of starting and managing a business. Joint endeavours may end quickly, or they may last for many years. In this study, I aim to discuss why and under what conditions stable and effective venturing develops.

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## 2. Current state of knowledge

The literature abounds with publications guiding young entrepreneurs on how to create, organise, and manage a joint venture. Robert Porter Lynch gives valuable advice and discusses in detail how to start a business, put the legal elements together, run marketing campaigns, analyse finances, and manage operations. He details the sequence of necessary actions by introducing verbal and graphical algorithms (Lynch, 1989). Nevertheless, he does not answer the question as to why an entrepreneur, an individualist by nature, agrees to run a business with someone else. Lynch's work is far from the only one to overlook this issue. Almost all the textbooks and monographs on joint venturing give an explanation similar to this: '... concept of pooling entrepreneurial wealth is of course the basis of the joint-stock company. It is of particular importance when the implementation of coordination involves economies of scale' (Shane, 2011, p.127).

Other authors also write about entrepreneurs pooling their resources to benefit from economies of scale: '[t]here are direct and indirect externalities from pooling resources that increase efficiency. For instance, facilities are shared by tenants so money can be invested in other useful activities' (Szirmai, p. 248). One cannot refute this obvious conclusion: the transformation of small enterprises into big ones means cost reduction brought about by economies of scale. Business practices and mathematical evidence support this conclusion (Svetunkov, 2012). At the startup stage, however, entrepreneurs do not have substantial capitals, property, or technology. They have nothing to pool to reap economies of scale. They approach third parties (banks, leasing companies, etc.) to procure necessary resources. In this case, individual entrepreneurship is in no way inferior to joint venturing. Therefore, one should look elsewhere for reasons why entrepreneurs unite into a close-knit business family at the very start of their journey.

Although many publications describe how joint ventures attain success (Levinson, 2014; Scheer, 2001; Skrob, 2013), none of them fully explain why. Authors are more in-clined to preach morality than to carry out a thorough analysis of factors behind success stories. Most publications tell how the entrepreneurs started their joint ventures; how they went through hardships and overcame failure together; and how they argued and almost dissolved when they earned their first big money. Most publications tell how the entrepreneurs started their joint ventures; how they went through hardships and overcame failure together; and how they argued and almost dissolved when they earned their first big money. These popular science-like narratives do not answer the question as to how some entrepreneurs achieve greater success on their own and others in a partnership.

Zenichi Shishido, Munetaka Fukuda, and Masato Umetani have given a detailed ac-count of possible conflicts and risks of joint venturing. They attribute the benefits of part-nerships to purely economic reasons. The authors maintain that, for a business to be stable, an entrepreneur should use special techniques to motivate his or her partner (Shishido, 2015, pp. 11-29). Belonging to the realm of psychology, the proposed techniques are beyond the scope of this research.

In their book on entrepreneurship, Richard D. Harroch and Gregory C. Smith pay considerable attention to formal aspects of joint venturing: the distribution of effort and resources between partners, agreements on cooperation and on responsibilities for its results, etc. The book maintains that joint venturing reduces risks, increases the efficiency of using resources, and so on (Harroch, 2012, pp. 52- 56). However, reasons to start a joint venture and conditions leading to their emergence exhaust the topic.

Seven years later, Smith published a monograph, at the very beginning of which he stresses that entrepreneurs should agree on how they will implement the joint venturing mechanism and what the contribution of each will be. He writes: '[a]t an early stage the parties to a joint venture usually establish a mechanism to allow the venturers to participate in daily operational decisions of the venture. The degree of participation will be determined by the roles of the co-ventures. For example, one party may contribute only capital or research and development technology while the other party contributes management expertise' (Smith, 2019, p. 74). In providing a rationale for joint venturing, he emphasises that the relationship between partners is fiduciary. At the same time, he stresses that partnership requires human relations between partners: 'co-venturers owe

each other the highest standards of good faith, honesty and fair-dealing' (Smith, 2019, p. 74). However, the history of entrepreneurship has known many prosperous joint ventures created by partners who lacked those properties completely. There are numerous examples of immoral entrepreneurs succeeding at doing business over long years. Therefore, the thesis about honesty and fair-dealing has more to do with morality preaching than with research findings.

Paul W. Beamish in his book *Joint Venturing* has come closest to answering the question explored in this article. Alongside organisational and fiduciary issues, he addresses social relationships between business partners. He pays particular attention to partner selection criteria (Beamish, 2008, pp. 47-53) and partner compatibility (Beamish, 2008, pp. 53-63). Unfortunately, Beamish does not explore the foundations of partnership. Nor does he answer the questions as to why partners start a business together and under which conditions they are more likely to attain success. As to compatibility of prospective joint venturers, he recommends an entrepreneur who is considering a business partnership to answer the following questions about his or her partner:

- Does the partner possess the skills I need?
- Will I get access?
- Will we be compatible?

An aspiring entrepreneur bases his or her decision regarding joint venturing on the answers he or she gives to the above questions.

An important part of the book focuses on compatibility – the key element of a joint business, which determines whether a partnership will last. Unfortunately, Beamish does not consider this problem as thoroughly as one could wish. He uses a simple approach and proposes a two-way cross-classification.

The first factor is partner comfort and the second is competence. Each of these factors is assigned a high or low value. Four 'comfort vs competence' variants are possible: 1) unstable; 2) target; 3) non-starter; 4) unstable (Beamish, 2008, p. 54). The decision on compatibility depends on which of these four variants is at play.

Thus, the reasons for and conditions of long and successful joint venturing have not been studied sufficiently.

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### **3. Development**

Many aspiring entrepreneurs have faced the question as to whether he or she should start a business alone or with a partner. My review of the literature suggests that people rely solely on intuition when making that decision. Science has not yet developed tools for an objective analysis of the efficiency of prospective joint venturing. It gives only one piece of advice: when weighing pros and cons, an entrepreneur should keep in mind the basics of a partnership: pooling capitals, sharing risks, and the synergy of business talent. However, most young entrepreneurs have no resources to pool. Risks are insignificant at the early stage: there is not much to lose if a wrong decision is made. Thus, the idea of partnership is very loosely connected with resources. It has little to do with the protection of a new company from external threats: small businesses and early profits fly under the radar of big players. Therefore, aspiring entrepreneurs pool efforts with a different goal in mind: they do so to complement and reinforce each other's competencies.

As early as 1973, Daniel Bell published his pioneering work, in which he described the growing effect of non-material factors on the economy (Bell, 1973). Post-industrial society, the advent of which Bell witnessed in the leading countries of the world, relies on non-material production. The economy of the new post-industrial era is dominated by services, information, and knowledge. Bell's book had a profound effect on subsequent economic research: studies shifted to the investigation of how intangible assets affect business efficiency. Göran Roos, Stephen Pike, and Lisa Fernstrom have demonstrated that intangible assets are becoming increasingly important for business today (Roos, 2005). When studying the assets of an organisation, the researchers distinguish between tangible and intangible resources. Since tangible resources go beyond the scope of my study, I will focus on intangible ones.

According to Roos, Pike, and Fernstrom, intangible resources can be monetary (credit ratings, accruals and set era), physical (plant location), relational (stakeholder support, networks, preferred status and set era), organisational (organisational structure, culture), and human (leadership, career path, experience, etc.). The authors believe that proper management of these resources can dramatically increase the efficiency of a business.

This conclusion applies to any business: by managing intangible assets, an entrepreneur can raise the efficiency of his or her business. The idea of intangible assets affecting production proves more constructive than it may seem. Associations of entrepreneurs, if they produce a synergy effect, are another intangible asset that translates into business efficiency. To understand how intangible assets affect efficiency, one should explore entrepreneurial resources and entrepreneurial capitals. Any entrepreneurial idea that has turned into a business project requires five types of resources. When put into action, these resources transform into types of capitals. These are: 1) time; 2) human resources; 3) information; 4) technology; 5) money. For centuries, economists believed that the entrepreneur controlled two types of resources: labour and capital. In recent decades, human resources have complemented this list as an additional business resource. Time, information, and technology become entrepreneurial capital when used in business.

Managing these types of capital to create an independent business is the primary function of an entrepreneur (Ponomarev, 2018). Resources do not appear on their own; nor are they easily managed. Everything depends on the abilities of an entrepreneur and his or her entrepreneurial substance. Resources are diverse. To manage each of them efficiently, the entrepreneur requires a combination of five entrepreneurial powers: 1) the millionaire instinct; 2) will power; 3) accuracy; 4) curiosity; 5) responsibility. One can assume that each of these powers may affect a certain type of entrepreneurial capital to varying degrees. It is obvious that the responsibility of an entrepreneur translates into the loyalty of his or her employees; accuracy is connected to time management; curiosity is needed for intensive work with information; will encourages an entrepreneur to introduce innovations; technology has a profound effect on management; and the entrepreneurial instinct helps to select the most profitable projects.

Entrepreneurs possess these powers in varying degrees. The personality of an entrepreneur, his or her mindset, education, and social environment, and the individual combination of the five powers shape the character of the entrepreneur and his or her business. The character of a business determines its style. Understanding the latter aspect requires addressing earlier literature.

The contemporary theory of management distinguishes among three styles of leadership: authoritarian, liberal and democratic. Ichak Adizes has shown how each of these styles emerge from a combination of the four main managerial functions (according to the style of work of the organisation) (Adizes, 2004):

- 1) producer (P),
- 2) administrator (A),
- 3) entrepreneur (E),
- 4) integrator (I).

He believes that each manager has his or her own type of the PAEI code. For some-one, (P) focuses on the result whereas another person is more concentrated on administration (A). However, Adizes's analysis of management styles is only limitedly applicable to this study. He defines the function of an entrepreneur as follows: an entrepreneur is by nature capable of preemptive actions in the environment of constant change; the entrepreneur is creative and ready to take risks. It is clear, however, that this is not enough to define what the entrepreneur is and what properties he possesses. 'Being enterprising' and 'being entrepreneurial' are two completely different things.

Adizes did not study the entrepreneur as such. The object of his research was management and the manager. He carried out a thorough analysis of management styles and their characteristics. However, he developed a very important tool that we will use in our research.

Adizes considers types of managers not as a set of rigid personality traits but rather as a set of properties, each of which can be expressed in varying degrees. Some of these properties are strongly pronounced in some managers whereas they are barely noticeable in others. Various combinations of the four main properties (a focus on the result, a focus on administration, enterprise and the desire to integrate) lead to the formation of distinctive traits of a manager.

Entrepreneurs may have very different sets of characteristics. Any successful entrepreneur has to complete the arduous journey from an emerging businessperson to a capitalist who does not engage in entrepreneurship anymore.

In the course of this evolution, significant changes occur in the worldview of an entrepreneur and his or her style of business. Attitudes to competitors and employees alter too (Ponomarev, 2018). However, the core properties of an entrepreneur remain unchanged in time.

Over many years, different researchers of entrepreneurship have identified the following properties or characteristics of an entrepreneur:

- 1) the ability to focus on profit and to put everything at stake to get it;
- 2) the ability to conduct business when there are risks and uncertainty; entrepreneurial profit is a genuine risk;
- 3) the ability to introduce innovations to get profit;
- 4) a creative approach to business;
- 5) specific knowledge of the market, people, and market conditions, which allows the entrepreneur to do business;
- 6) a desire for continuous accumulation of capital;
- 7) money is the most important value for the entrepreneur; this makes it possible to compare his or her capital with that of others, objectify the world as a whole, and make it more rational, predictable, and assessable;
- 8) successful entrepreneurs are the individuals who are not burdened with social and cultural ties and relationships; this allows them to initiate super-profitable and sometimes unethical and immoral business projects;
- 9) the behaviour of entrepreneurs is often irrational; they do not even try to be rational: the cognitive abilities of a person (perception, memory, decision-making, etc.) are limited;
- 10) the behaviour of entrepreneurs is not rational because of the irrational nature of the surrounding world (Odiorne, 1990);

The list above covers a large number of properties. However, some of these ten basic properties can be combined into groups. I distinguish the following types of entrepreneurs:

- 1) T - Trader (businessman, merchant, dealer);
- 2) E - Engineer (engineer, financier);
- 3) R - Raider (conqueror, security guard, warrior);
- 4) I - Inventor (inventor, innovator);
- 5) S - Schemer (combinational player, communicator, organiser, lobbyist).

The properties of each type are inherent in every entrepreneur. However, in each individual, they are expressed to various degrees. Consequently, entrepreneurial styles also differ.

Let us consider each of the five groups.

The Trader was the first historical type. A trader is a merchant, a shopkeeper, or a money lender. Before industrialisation, merchants and barterers constituted this type. The famous Venetian and Hanseatic leagues were the main economic driving force of Western Europe in the first half of the second millennium. Those people built modern civilization and ensured the exchange of goods and technology. They created the trade route from the Varangians to the Greeks and spurred the development of Russian statehood in Europe. A trader has a good intuition and a special sense of trade. Such people derive great joy from the very act of closing a deal. This entrepreneurial quality is usually innate and manifests itself quite early in life. The main quality of an entrepreneur is the ability to make a deal. Each entrepreneur has this talent but, again, in varying degrees.

An Engineer is a technically minded person, a builder, a farmer, a financier, or a capitalist. They are business creators who have built the modern economy – from the first factories to modern industrial giants. Among them are the modern Atlantes: Rand, Ford, Rockefeller, Dupont – the people behind the industrial potential of the United States. Among them are the great Russian industrialists - the Demidovs, the Morozovs, the Ryabushinskys, the Stroganovs, and the Nobels. The great Germans, Japanese, Koreans, Chinese who created the most famous world brands belong to this type. We would live in a different world if Benz, Daimler, Porsche, Mitsubishi, Toyota had never been established. Engineers operate in construction, transport, banking, agriculture, and the food industry. At the core of their business is craft. Craft is always a business. An entrepreneur with pronounced engineering skills can establish perfect business procedures.

A Raider is a warrior, a security guard or a power entrepreneur. Even at the dawn of civilisation, merchants organised long-distance armed raids to get spices or sable fur. As a result, Europe conquered the American continent and Russia expanded as far as Siberia and the Far East. The recent world economic crisis was a reminder that capitalism can both create and destroy. There are numerous entrepreneurs seeking to establish control over different types of assets at any cost.

For them, the most important thing is 'nutritional value' – the liquidity value of the asset acquired. In the economic history of Russia, there have been at least two types of such power entrepreneurs – those of the 1990s (former criminals and athletes) and of the 2000s (former law enforcement officers). Naturally, the main thing for them is power. Any entrepreneur belonging to this type must have this quality, otherwise, his business is short-lived.

Another type, the Inventor, is a creator and an innovator. In this context, I cannot but quote Steve Jobs, who famously said, 'Praise to the madmen, to the rioters and troublemakers. To those who are always inopportune and out of place. To those who see the world differently. They do not follow the rules. They do not respect the status quo. You can quote them, argue with them, glorify or curse them. But it is impossible to ignore them. Because they bring change. They push humanity forward. And let someone see them as madmen, we see geniuses. Because only madmen believe that they can change the world. And so they change it'. This type of entrepreneur lives by discovery. In the modern theory of entrepreneurship, the postulate that the entrepreneur is an innovator is axiomatic. Yet, in each entrepreneur, the ability to innovate is expressed in various degrees. In addition, the desire to become a 'troublemaker' decreases with time and acquires a more civilized and 'quiet' form.

A Schemer is an organiser, a lobbyist and a rentier. All Russian businesspeople have known from their early childhood the literary character Ostap Bender, or the Smooth Operator, from the novel *Twelve Chairs*. Created by Ilya Ilf and Evgeny Petrov in the 1920s, at the time of the New Economic Policy, Bender is the epitome of an irrepressible organiser, a specialist in communications, and a grand schemer. Beyond fiction, the economic situation that formed in the 1990s after privatising the largest Russian enterprises is to a degree a brainchild of talented entrepreneurs who took advantage of their connections, lobbying capabilities, and contacts abroad. This type of entrepreneur is a good manager of entrepreneurial assets (time, people, technology, finance). The main ability of these entrepreneurs is to connect the non-connected, i.e. the ability of networking. This type is notoriously known for organising pyramids. As entrepreneurs of this type mature and withdraw from active business and the management of capital, they tend to create legal and secure business schemes and often become rentiers. They manage people.

Each entrepreneur combines all the five components of the entrepreneurial sub-stance. Therefore, every entrepreneurial type can be described by a code - a combination of all the five types. Pronounced properties of the entrepreneur will be written in capital letters, for instance, TERIS. If some properties are poorly expressed, they will be written in lowercase: teris. Below I will refer to the identified qualities as genes.

In practice, pure types of entrepreneurs that possess only one dominant gene are a rare occurrence. Entrepreneurs belonging to one type only, i.e. having one dominant gene, are vulnerable and limited in their decisions. The lack of business-generating genes (T, E) or the organisational (S, or I) makes it impossible for such entrepreneurs to effectively use the acquired assets.

A raider with the T gene is capable of monetising the asset effectively. If an entrepreneur possesses the I gene, he is a visionary and can foresee future developments of his business. The S gene ensures a deeper understanding of one's own weaknesses and turns them into strengths by using a third-party business substance, by forming partnerships or by developing entrepreneurship within the company.

The internal code of an entrepreneur is manifested externally. Having identified the five main qualities that are inherent in each entrepreneur and manifest themselves in varying degrees, we can now return to Adizes's methodology to explore styles of entrepreneurship.

The TERIS properties of an entrepreneur determine both the style of entrepreneurship and competencies that are key to success in business. A successful entrepreneur possesses all the elements of the code, albeit to a slightly varying degree. Overall, all of these properties have to be clearly pronounced for a business to be efficient. The results of my survey of over 450 Russian entrepreneurs corroborate this conclusion: 48% of the respondents said they had the Trader characteristic, 42% - the Engineer characteristic, and 49% - the Raider characteristic. As one can see, these properties are present to similar degrees in the TERIS code of an average entrepreneur. Surprisingly, the Schemer code proved to be dominant: 88% of the respondents identified themselves with this type. Another important property is the Inventor, 75% of the surveyed entrepreneurs think they possess this attribute. It means that an efficient entrepreneur has to be a Schemer and an Inventor. These two characteristics distinguish an entrepreneur from all the other participants of economic activities. The Trader, Engineer, and Raider characteristics may manifest themselves to varying degrees. Therefore, an entrepreneur who is primarily a

Trader may lose the competition against someone who is both a Trader and an Engineer. To fight off competition, an entrepreneur who does not have the Engineer code and yet needs it to succeed employs people with the necessary competency.

There is another way for an entrepreneur to compensate for missing competencies. He or she can forge an alliance with friends and relations who have the required qualities. An alliance transforms into a joint venture where the roles and responsibilities of partners are clearly defined. If all the five TERIS characteristics are dominant in the consolidated code of joint venturers, the resultant alliance will be both viable and efficient. Although a long and close friendship, similar worldviews, and ties of kinship are important, they are not decisive for the efficiency of a joint venture.

Different TERIS codes that seamlessly complement each other provide a solid foundation for a stable business.

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## 4. Conclusions

It is commonplace that the paths of friends who once founded a complex business together diverge. Someone will continue to run a business on his or her own. Someone will stay in business not as a partner but as a manager. Someone will abandon business endeavours. There are many causes to the failure of joint ventures; there are much fewer reasons for partners to stay together for life. I believe that the key factor behind success is the ability of partners to complement each other in terms of the TERIS code. If entrepreneurs have different TERIS codes and, when combined, these codes have maximum values in each element, the joint venture has excellent prospects. In this case, a partnership is not a mere sum of their efforts, properties, and characteristics; it produces a synergy effect. Therefore, the partner selection procedure is as follows. Prospective partners should take into account both their interpersonal relationship and their TERIS codes to make sure that their combined code completely covers all the code elements.

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## Bibliographic references

Adizes, I. Management/Mismanagement Styles: How to Identify a Style and What to Do about It. The Adizes Institute Publishing, 2004.

Beamish, P. W. Joint Venturing, IAP, 2008.

Bell, D. The coming of post-industrial society: A venture of social forecasting. N.Y.: Basic Books, 1973.

Casson, M. The Entrepreneur: An Economic Theory. Rowman & Littlefield, 1982. 418 p.

Harroch, R. D., Smith G.C. Start-ups: A Toolkit for Entrepreneurs. BCS, The Chartered Institute, 2012.

Levinson, J. C., Khan, S. Guerrilla Marketing and Joint Ventures: Million Dollar Partnering Strategies for Growing ANY Business in ANY Economy. Morgan James Publishing, 2014.

Lynch, R. P. The practical guide to joint ventures and corporate alliances: how to form, how to organise, how to operate. Wiley, 1989.

Odiorne, George S. The Human Side of Management. Lexington Books, 1990.

Ogilvie, S. Institutions and European Trade: Merchant Guilds, 1000–1800. Cambridge University Press, 2011.

Ponomarev, O. B., Svetunkov, S. G. Dynamic approach to the analysis of the essence of entrepreneurship // Revista ESPACIOS. 2018, vol. 39 (Nº 50)

Roos, G., Pike, S., Fernstrom, L. Managing intellectual capital in practice. Butterworth-Heinemann, 2005.

Shane, S. A. The Foundations of Entrepreneurship, Edward Elgar Pub., vol.2, 2002.

Scheer, A.-W. Start-ups are Easy, But... Springer Science & Business Media, 2001.

Shishido, Z., Fukuda, M., Umetani, M. Joint Venture Strategies: Design, Bargaining, and the Law. Edward Elgar Publishing, 2015.

Skrob, R. Start Your Own Information Marketing Business: Your Step-By-Step Guide to Success. Entrepreneur Press, 2013.

Smith, G. C. Start-Up & Emerging Companies: Planning, Financing & Operating the Successful Business. Law Journal Press, 2019.

Svetunkov, S. Complex-Valued Modeling in Economics and Finance. Springer Science+Business Media, New York, 2012.

Szirmai, A., Naudé, W., Goedhuys, M. Entrepreneurship, Innovation, and Economic Development. OUP Oxford, 2011.

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