

PROJECT FINANCING

Project financing reflects the sources of funds in order to start any new project. Project can be opening of new company, subsidiary company, starting of new plant, it can be of infrastructure or it can be industrial project etc. Most of the time projects are of long term period and project financing is the long term financing. The future cash flows of the project plays very important role in the decision, that either the project should be started or not (Buljevich & Park 1999).

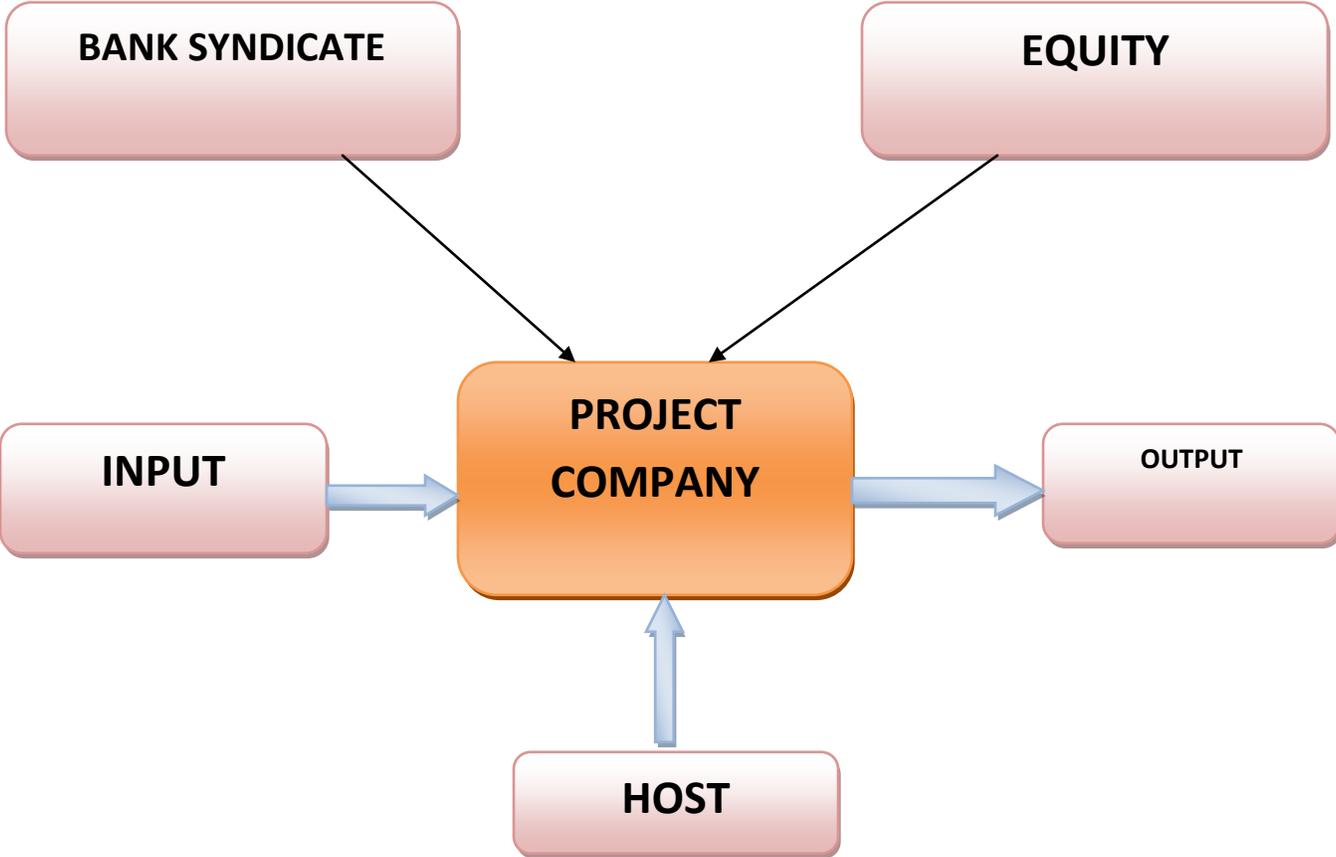
Projects can be financed through the equity. The investors who take part in the equity financing are called sponsors. Project can also be financed through the bank loan. Normally the syndicate of the banks provides loans to the operation. Banks take the assets of the project for the security purpose. Bank loan is totally depending on the future cash flows of the company which are basically forecasted cash flows. If the project company will unable to pay the principle and interest to bank the bank can sell the company's assets. Normally the high profile corporate projects use the innovative technique of project financing (Finnerty 1996).

Project financing is used to fund large scale resources to run the business. For the project financing, financial plan is the key element. On the basis of the financial plan companies get the project financing, in the financial plan companies have to design the financing mix and assess the risks and then raise the funds. Companies need to analyze the cash flow projections and find out the expected return and use different methods in order to check the feasibility of the project (Fight 2006).

The major component in the project financing is the identification of the risk. Company also needs to find out each and every risk which is associated with the project because this is very important for the financiers. There are different kinds of risk that company can face like political, environmental, economical etc. If there is high risk in the project then the major part of the project may be failed and financiers can lose their money. So the financiers must ensure that the risks associated with the project are minimum and can be eliminated or reduced as much as possible. If the risk of the project is high then the cost of the financing is also high and if the risk is low then cost is also low because generally financier charge high premium for the risky projects (Fight 2006).

Project financing is mostly used in large industries. The project can offer government short term and long term benefits. The project can be used by the government in short term for different political outcomes and for the purpose of drawing more and more international financiers and developers from different regions and countries of the world. On the other hand the projects can also generate long term benefits to the government as efficient and effective projects will ultimately facilitate the process of the economic growth the progress and also will result in stability of the political environment. A project might require the cooperation of third countries for project success. For example, supply of fuel from a third country, project production to be exported to a foreign country, thus necessitating the appropriate permits and contractual commitments. The process is properly documented under legal umbrella (Hoffman 2007).

PROJECT FINANCING STRUCTURE



Risks Associated With Project:

As the nature of the most of the projects is long term so it is risky from the lender point of view. In long term projects the maturity period is long so it increases the riskiness of the project. So it is the main duty of the financial institutes who involve in the project financing to calculate, identify and quantify the risk (Jones & Emmerson 2007). There are different types of risk associated with the project financing:

Political risk: This type of risk is associated with the projects in foreign countries like multinational companies face the political risk. This risk is from the host country and it arises when there are high uncertain political conditions in the host country because political activities of the country have major effects on the value of the firm. So before going to invest in any country the investor as well as financier must assess the political risk associated with that project. There are two types of the political risk, internal and external. When there are internal conflicts in the country like religious issues, racial issues etc then internal political risk arise. When there is war in the country and occupation of the foreign power then external political risk arises (Sorge 2004).

Economic risk: This type of the risk is associated with the economical conditions of the country like GDP, inflation rate, employment/ unemployment rate, investment ratio, import/export etc. the assessment of this risk is also necessary (Sorge 2004).

Resource risk: If the raw material, labor or other resources to run the project are not available sufficiently in future then it create also risk for the financier to recover its money (Sorge 2004).

Input risk: May be the prices of the inputs of the project increase so it is also one kind of risk.

Market risk: if the company is starting new project to expand its business in the new market and if in future the demand of the product decrease, then company is not able to achieve its target cash flows and unable to pay off the loan.

Entity Risks:

Each participant in project finance has a different perspective on risk, which is often based on the role he/she is playing in the overall project financing structure. One investor might think that he'll get the highest return on his investment whereas other might think that he'll get less return on his investment. Different participants with different perspectives have various attitudes

towards risk. The view of risk is not only subjective but it is based on the characteristics of the participant as well. Some risks might be manageable while other may not be so. Therefore, it is mandatory that the parties involved should assemble proper data about the project, its measure of riskiness and its pros and cons, before getting into it (Sorge 2004).

Transaction risks

Without a detailed analysis of the project risks, the parties do not have a clear understanding of what obligations and liabilities they may be assuming in connection with the project and therefore they are not in a position to consider appropriate risk-mitigation exercises at the relevant time (Sorge 2004).

Many problems could arise when the project is under way, it can result in:

- Considerable delays,
- Large expenses and arguments as to who is responsible.

Financial Risks: It includes

- Foreign exchange (FX) risk: The risk of exchange rate and dealings in different currencies is always a big one. There is always a threat of increased exchanged rates.
- Inflation risk: the inflation risk is defined as the risk associated with the increasing prices of the materials and other inputs
- Liquidity risk: If the company show a good ability of generating cash funds then there might not be liquidity risk present.

There are basically two main phases in the project. One is construction period and other is operating period. Both the phases have different kinds of risks and different strategies to mitigate those risks. Construction period involve the environment and technology risks and operational period involve the market risk. The risk can be managed or reduced in the construction period by using the private insurance, by doing the contractual arrangements, by maintaining the contingencies funds. And in operating period the risk can be reduced by using the risk minimizing tools like hedging (Sorge 2004).

Risk Periods in Project Financing

The project financing includes three major periods which are usually associated with risk. These three periods are (Fight 2006):

1. Period of engineering and construction
2. Period of the startup of the project
3. The operational period of the project

1. Engineering and construction phase risks

At the first stage, no cash flows are being generated, no interests are being paid. The length of this period could be several months or several years. Risks associated with the project during the construction phase include:

■ **Sponsor risk:** Sponsor risk is closely linked with completion risk. The perception of the bank about the completion risk is directly related to the perception of the bank about the sponsor risk. This can be further divided into two different factors: one is equity commitment under which the banks or the institution lending the money will ask for around 15 to 50% contribution associated with the cost of the project and second is the experience and the strength of the corporation.

■ **Pre-completion risk:** The engineering and design review focuses on the suitability of the technology and design chosen for the project. Banks may well hesitate to finance projects using old / untested technology.

■ **Sitting and permitting:** Linked to political risk, can present a more difficult area of analysis. Regulations and legislation in some jurisdictions can leave continuous openings for project opponents to stop projects for indefinite reasons.

■ **Completion risks:** The risk that whether or not the project can be built on time, on budget and in accordance with the applicable specifications and design criteria.

- Experience and resources of contractor: Here contractor's experience, reputation and reliability is tested, whether he'll provide good human and technical resources necessary to satisfy contractual requirements, as well as ability to work with the local labor force.

- Cost overruns: The risk that construction costs start to increase uncontrollably is perhaps the most important risk for the participants in a project financing. This may result in liquidity crises, as well as impact on long term cash flows.

2. Start-up risks

It is mandatory to satisfy and convince the banks during the initial phase that the costs associated with the project and the operations of the projects will be in accordance to the preset specifications. The start-up phase may last for a period of many months.

3. Operational risks

The lenders are dependent on stable cash flows from the project loans. The lenders should guard themselves against the loss by entailing the project company to maintain ratios and loan covenants.

- Operating/performance risk: Operational risk is the risk that normal ongoing operations will fail to generate the cash flow required to run

- Raw material/supply risk: Input and supply risk relates to obtaining the requisite energy and raw materials for the project.

- Off-take and sales risk: The off-take and sales risk is the risk that the project will fail to generate sufficient cash flow. This is why the sales, or off-take risk, is the key risk that banks will look at.

- Counterparty risk: there are different parties which are associated with the project including contractors, companies used for insurance, different financial institutions, etc. The performance

and success of the project is directly dependent on the effective and efficient operations of these counterparties.

■ **Technology/obsolescence risk:** Banks normally avoid new technology risk until it becomes proven technology. On the other hand the sponsors of the project have to consider various new technologies as there may be several opportunities arising from these new and advanced technologies.

How we can minimize the risk of the project?

Every financier wants, that the project that the financier is going to finance has minimum risk level. There are some of the events that occur and create negative impact on the project like, the project is taking extra time and budget than estimated, the project is not performing and operating at its full capacity, the time period of payment of loan is near to end, the revenue and cash flows of the project are not according to estimation and are not sufficient. So the companies need to minimize all these risks. For this the companies need to analyze and identify all the risk which is associated with the project. It is very necessary that all the risk must be allocated among the parties. And all parties put their best efforts to create the mechanism to minimize the risk. If the companies will not put their efforts to minimize the risk as much as possible then they have to bear the high cost of the project because the financier will charge the high rates for the risky projects (Fight 2006).

Financers or sponsors of the project always prepare the feasibility study of the project in which the financers analyze the cash flows of the project by using financial modeling tools. They also analyze the cash flows of the projects in different scenarios like in different inflation rate, exchange prices, interest rate etc. After that financers allocate the risks among the parties. Financers always take the security of the project in the form of control on the project assets. Financer should be personally involved in the project and continuo monitor the project because through this the financier has update information about the project performance. Financer need to evaluate the project very carefully (Buljevich & Park 1999).

There are different methods of evaluating the project like valuate the project by using discounted cash flow valuation. Project can also be evaluated by using the net present value (NPV) method. Beside these two methods there are also other methods to evaluate the project and make the financing decision like discounted payback period method, internal rate of return (IRR), modified IRR, ROI etc (Fight 2006).

Methods of project financing:

There are different kinds of funding sources that companies can use to finance their project. Like companies can go for debt financing which means take loan from lending institutions (banks) or they can also go for the equity financing. Most of the time companies go for debt financing for their projects and take loans from lending or banking institutes. Banks charge the interest from the borrower and borrower pay the loan in the form of period payments that can be annually, semi annually, monthly and quarterly (Fight 2006).

There are different sources of generating the funds for the project in USA. Some of them are:

- Take loan from commercial banks
- Through community reinvestment act
- Department of Housing & Urban Development (HUD) Grants
- Through private loan and grants.
- Through secondary mortgage market
- For agriculture products, can take fund from US department of agriculture loan.

Methods of Project financing in USA:

There are various sources to fund a project in USA, which are as follows:

1-Public Finance:

An infrastructure project can be financed through public's help. A government borrows funds to finance and to give an independent warranty to lenders to pay back all their funds. Government

can also put in their own equity in addition to the borrowed funds. First, lenders investigate whether the Government has ability to raise funds through taxation and general public enterprise revenues, including new tariff revenue from the project. The independent warranty then becomes a liability for the Government's financial obligations (GE commercial finance).

For several years, governments, including the US government, have funded a variety of projects by using existing surplus funds or issued debt (Treasury Bonds) to be repaid over a specified period of time. However, as time passed governments found this process of funding extremely tiresome and less attractive, because it strained their own balance sheets and also limited their ability to undertake other projects. This concern has encouraged the search for alternative sources of funding (Buljevich & Park 1999).

2-Corporate Finance:

A private company borrows funds to construct a new facility and guarantees to repay lenders from its available operating income and its base of assets. The company may choose to give its own equity as well (Buljevich & Park 1999).

In performing credit analysis, lenders look at the company's total income from operations, its stock of assets, and its existing liabilities. The loan, of course, becomes a liability on the company's balance sheet.

3-Project Finance:

A team or an association of private firms establishes a new project to build, own and operate an explicit infrastructure project. Different sponsors gain profit from capitalizing the project company with various equity contributions. The project company borrows funds from lenders. The lenders look to the projected future revenue stream generated by the project and the project company's assets to repay all loans. When it comes to getting a project financed in a host country, the government there won't provide a financial guarantee to lender and sponsoring firms will only provide limited guarantees.

The assets of the projects along with the future expected revenues are used for the purpose of raising funds in the process of project financing (Buljevich & Park 1999).

Generally, a company which is legally independent is established by the sponsors of the project for a particular reason and the major shareholders of that company are the sponsors themselves. The newly created company usually has the lowest amount of equity required to issue debt at a reasonable cost, with equity generally averaging between 10 and 30 per cent of the total capital required for the project. Relatively small share of the equity of the newly made company is held by different individual sponsors in order to ensure that the a subsidiary is not made. Each and every legal firm has a different ultimate legal structure (Buljevich & Park 1999).

There are times when the project company has multiple sponsors. It could be because:

- The project goes above the financial or technical capabilities of one sponsor
- The project risks have to be shared
- Several smaller projects will not achieve the economies of scale as a larger project does
- In terms of capability, the sponsors complement each other
- The process requires or encourages a joint venture with certain interests (e.g. local participation or empowerment)
- The maximum equity position by a sponsor is stipulated by the legal and also the accounting rules.

Project Funding Alternatives

There are some types of long-term securities that a project may issue in raising funds. They are listed in order of seniority from the most risky, requiring the highest level of return, to the least risky, requiring the lowest returns (Shah & Thakor 1987).

- *Common equity*: the ownership of possession of the project is represented through the common equity. The major part of the equity is held by the sponsors of the project

- *Preferred equity*: also signifies the ownership of the project. However, in the event of liquidation, the preferred equity sponsors have precedence over the common equity holders in getting dividends.
- *Convertible debt*: is convertible to equity under certain conditions, usually at the choice of the holder. This debt is generally considered secondary and senior lenders regard it as pseudo-equity.
- *Unsecured debt*: this debt is given preference over the equity and convertible debt when dividends are being distributed or when the principal is being repaid. The unsecured debt, as clear from the name, is not secured by any specific asset and can be for both short term or long term.
- *Secured debt*: It is secured by specific assets or sources of revenues and can either be short or long term.
- *Lease financing* varies in terms of structure and duration, and the rights of the assets which are leased are always with the lesser. Its driving forces are issues and problems of taxes and the strength or power of the collateral. Banks generally offer other short term funding options. These are best described by their use of funds and they also carry specific conditions that will meet those necessities.
- *Construction financing*, as it is obvious, is utilized for the reason of construction. The construction financing is generally flexible in nature. When the construction is completed, it is generally replaced by one or more of the longer-term securities. There is different level of securities which are required by the lenders. It also happens that the lender of the construction financing can also be the long-term investor who can straighten out the construction financing.
- *Bridging finance*: the bridging finance is normally used during the initial phase of the project and is almost same as the construction financing. It is also used for several other reasons or purposes. When longer term funding is received, this type of financing is eliminated. Like the

construction financing, it also involves different levels or types of securities. These securities also include commitment from the firm to facilitate the settlement of the bridging finance.

- *Line of credit:* the attainment and repayment of the line of credit is done on regular basis and it lasts during the lifetime of the project. Credit lines are used as a cash management tool and are usually set up with various banks. The fee structure is based primarily on a commitment fee – a percentage (usually between 1 and 3 per cent) of the sum of the line of credit entrusted by the investor, because a line of credit will not essentially be used.

The amount drawn through the line of credit is charged a short term interest rate. Considering the active nature of finance and the exclusivity of each project, hybrid securities are continuously being developed to meet investor requirements.

Strategies of financing:

Most of the times financial sponsors hire the financial advisor to make the financial strategy. Financing strategy is very important in the project financing. Advisors use the technical methods, track records, and innovative thinking to make financing strategy. With the help of the sponsors, financial advisers find out the different possibilities of the funding and also analyze each source and find out the risk. Financial advisors main motive is to divert the risk from sponsors and try their best to maximize the project ability to leverage or to maximize the gearing ratio. Financial advisors need the cash flows of the company to make the financial strategy.

There are two types of funding, long term and short term funding. Financial advisors should know that what is the requirement of the investment market. Every investor wants the maximum return and minimum risk. Some of the investors look for fixed rate on their investment and some look for variable rate. If the investor is giving loan for the long term then the charges or required rate of the investor will be high and for the short term investment investor charges the low rate. Financial advisors have to decide the maturity period of the project's securities.

The life of the project assets has a great impact on the life of the capital structure. Matching the life of the project's capital with that of its assets may reduce the cash flow implications of the repayment of the debt principal. Financial advisors need to find out the optimal gearing ratio of

the project's capital structure. If the company is highly Leverage Company then interest payments increase and it create negative impact on the earnings of the company but on the other hand it is somehow beneficial for the company because the cost of equity is always less than the cost of debt. Debt investor or the banks (financers) should focus on the debt serving coverage ratio of the project (John & John 1991).

SYNDICATED LOAN:

When more than one lender in the form of group provides the loan then it is called syndicated loan. This group includes the commercial banks or investment banks. These group members are known as arrangers. In USA and Europe the most prominent way of getting loan for the corporations or for the projects is the syndicate loan. In USA and Europe the main financing providers are banks and other financial institutions. That's USA market has a high leverage ratio. Companies need the funds to start any new project so investment banks play the role of investor and provide the capital to company and borrower pay the fee to the investment banks and this fee depend on the complexity and risk associated with the loan, the higher the risk and complexity the higher the loan. In the US the rate of loan is LIBOR plus premium. In the US most of the corporations go for the debt financing but on the other hand in Europe there is more focus on the private equity and in Europe there are more standards and regulations associated with the practices of the loan. There are three main types of the syndications. These types are Underwritten deal, best efforts syndication and club deal. In the US market there is more practice of the best effort syndication and in the European market there is more practice of underwritten deals (Taylor & Sansone 2007).

There are so many reasons of making the transactions leveraged, like leverage transactions provide the support to the company in the capital expenditure, working capital, and expansion. When the company is going to expand its business, company needs money or resources so leverage transactions provide the sufficient loan to company. There is also one super category of the loan which is called debtor in possession (DIP) loans. As far as USA is concern most of the takeovers of the corporate sector generate the leveraged lending but in the Europe the takeovers

resulted in private equity funds. In Europe these types of transactions are termed as LBOs and in the USA all the transaction related to private equity are termed as sponsored transaction (Taylor & Sansone 2007).

In the takeover transaction, first the auction is announced by the company. When company first time sells to private equity that is called primary LBO and when already private equity owned company sells to another sponsor then this is called secondary LBO. Acquirers always evaluate the project because they are going to provide funds to that companies. When the companies need funds, they concern with different banks (arranger) and all arrangers offer their syndication strategy and other details about the loan including price and cost, then the companies select the most appropriate one and syndication process starts. Normally the sponsors initiate the syndication process, which are basically the provider of private equity and going to make the leveraged transaction on the behalf of the investors (Taylor & Sansone 2007).

In Europe there is a concept of the mezzanine capital funding. In Europe the banks give all the details about the loan to the company like terms and condition, investment considerations and company contract with the qualified bank. There is a concept of the term sheet which basically describes the pricing, structure, and others terms and condition of the credit. The financiers also need the industry and company overview so company needs to provide this to the financiers, on the basis of which financiers do the analysis of the company. Company needs to explain clearly to the financiers or arrangers that why the company is taking loan and also give the proper scheduling that how company will repay the loan (Taylor & Sansone 2007).

In Europe the process of the syndication is quite different and complex than in the US. In the starting of the syndication process the financiers/lenders and borrowers designated the MLA. It is not necessary that the terms of the loan are fixed. Most of the times they are flexible and can change from time to time (Taylor & Sansone 2007).

Documents in syndication process:

- Mandate letter
- Term sheet

- Information memorandum
- Syndicated facility agreement
- Transaction security documents
- Inter creditor agreement
- Structural intra group loan agreement
- Hedging letter
- Fee letter
- Other documents (like insurance letter , auditor statement s, cash flow projection statement etc)

There are also different advantages of syndicate loans. Some of them are:

- Because of the syndicated loan the competition for the company's business will increase and other banks also provide the market information to your company with the hope of recognition.
- Most of the time syndicate loans have flexible pricing structures that increase the choices and options for the borrowers.
- There is also facility of negotiation with each bank.
- As the banks are going to lend huge money to company so they do the proper research about the market and analyze all the risks associated with the project. Syndicate banks also share this information with the borrower company and it will help company in making its decision about the future operations.
- Through the syndicated loan the borrower in the open market also increase

Challenges in project financing:

There are number of characteristics of the project that make the project financing difficult and challenging. It is very difficult to invest high amount of the money in the single purpose asset. In some of the sectors the investment on the project is very high so create difficulty and ambiguity for financier to lend such high amount of the money. In the construction period company is

unable to generate the high revenues so create challenge for financier to lend large amount of money (Nevitt & Fabozzi 2000). Some of the other challenges are:

- Handling of the cash flows
- Working capital requirements
- Liquidity problems
- Unpredictable funds requirement
- Unplanned growth
- Liability of newness

CONCLUSION:

Every party involve in the project must act creatively and try to meet all the challenges in the completion of the project and manage the risk effectively and efficiently and make the project financing successful. It is correct that financing through the syndicate loans make the company highly leveraged but on the other hand cost of debt is always less than the cost of the equity. Syndicate loan involve the risk for both borrower and lender. For borrower it is great risk to make its company highly leverage because if the cash flows will not be according to projections then it become difficult to pay off loan amount and company can become bankrupt. And on the other hand for the lender if the company will not able to pay the loan then the bad debt increase and bank can face the liquidity problems. So it is very essential for both the parties to assess every risk associated with the project and make decision by considering all of these risks.

As far as US is concern, in US the leverage ratios of the companies are very high and there is more focus on the debt financing rather than the equity financing. Recent crises in US were also because of too much mortgage financing. So US government needs to take action on it

and reduce the level of syndicate loan in the economy because very high use of the syndicate loan also creates negative impact on the economy of the country.

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