

# Research paper on the basics of mobile virtual network operator

[Business](#), [Company](#)



## **Abstract**

Mobile Virtual Network Operator(s) (MVNO) are mobile service providers who do not have their own radio spectrum frequencies that are licensed and they also don't have all the necessary infrastructures required to offer or provide telephone services. However, there are many opportunities that are coupled with the existence of Mobile Virtue Network Operators for instance to the telecom as well as non-telecom companies Labordere, (2009). These companies are given an opportunity to take part as participants in mobile sectors. Incoming players in this arena have all the opportunities of extracting much from their present clients by adding fresh revenue streams or empowering their existing value propositions. This paper explains what Mobile Virtual Network Operator is, how it works in relation to Mobile Network Operators, how they work, Examples of Virtual Mobile Network companies, their predicted future and the risks and challenges that are expected when utilizing the services of Mobile Virtual Network Operators. (Labordere, H. 2009)

Conversely, companies that have required infrastructures are known as Mobile Network Operators (MNO). Mobile Virtual Network operators are similar to the “ switchless resellers” or marketers of the original telephone that is in landline form. There are cases where Mobile Network Operators are not validly operating under a license can as well operate as a Mobile Virtual Network Operators in a given area.

Traditional, mobile value chains may be split into two major areas and these are:

1. - the radio access network that is completely exploited by Mobile Network

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Operators, even though it needs a license that is issued by regulatory authorities to be able to take advantage and utilize the spectrum, and

2. - The remaining elements that are required in order to efficiently deliver quality services to the clients. Therefore, the value chain encompasses: the operations of the main networks for instance transportation, switching rights and the backbone among others. Others are value added services and other operations like the Voice Mail and Short Messaging Services (SMS) . Also, others are functions of the back office processes for the sake of promoting the processes of businesses like SIM logistics and handsets, the registration of a subscriber, balance checking, balance top ups as well as billing and lastly, the definitions of mobile value offers as well as the final delivering of goods and services to the subscriber via distribution channels. Mobile Virtual Network Operators and Mobile Network Operators are likely to take advantage and benefit from type of business model.

According to Nagalamai (2010), the Roles and relationship of a Mobile Virtual Network Operator in relation to Virtual Mobile Operators do vary depending on the country, market, as well as personal situations towards them.

Generally, Mobile Virtual Network Operators are companies of entity working freely or independently as compared to Mobile Network Operators whereby they are obligated to set their own prices that are corroborative to agreed rates with available Mobile Network Providers. Usually, Mobile Virtual Network Operation owns no CDMA, GSM, as well as any other infrastructures that are primary mobile network related with a good example being the Mobile Switching Centers (MSCs) or in other words, radio access networks. In some instances, others may rightfully own their Home Location Registers

(HLR) allowing them to be more flexible and own mobile subscriber's phone numbers (MSISDN) this means that the Mobile (Nagalamai, D. 2010).

Mobile Virtual Network Provider (MVNP) tends to roam with other networks abroad as a partner and also within its region as a network. Some Mobile Virtual Network Operators are obligated to conduct their own Business Support Systems (BSS) or customer care services as well as their billing services. Most Virtual Mobile Network Operators utilizes services of Mobile Virtual Network enablers. There is a clear distinction Between Mobile Virtual Network Operators and service provider, following the purchase of mobile minutes in wholesale and as well as the reselling to end-users. Usually, they have their own SIM cards and therefore all the services that are offered by service providers relies on Mobile Virtual Network Operator and Mobile network Operator's hosting services.

## **Mobile Virtual Network Operators business models**

Basically, business models especially in the MVNO are founded in accordance to the way value chains are restructured. In that case, there are four main business models emerging and they are: Full- Mobile Virtual Network Operation, (Full-MVNO) Light- Mobile Virtual Network Operators (Light-MVNO), Branded reseller and Network enablers.

Full- MVNO is new and most complete intermediate model. In this model, the MNO gives access to the network infrastructures and, in some instances, part of the main network, as the fresh venture gives the remainder of chain values elements. This model is well adaptable to telecom players who are likely to gain synergies from their present business operations.

Light- MVNO- this is also another intermediate model that encompasses a Full- MVNO and a branded reseller. This kind of intermediate lets fresh ventures to take control of the sales and marketing sectors and in some instances; there is increment in the level of control on back office activities as well as in value-added activities and also service definitions.

Network Enablers- This type of model is also known as Mobile Virtue Network Enablers (MVNE). This type of model takes care of the provision of infrastructures facilitating the launching of (MVNO) and it is also a third party network provider. A Mobile Virtue Network Enabler can be incorporated with an MVNO venture and a host MNO so as to offer a service that ranges from back offices operations and value added services.

## **Examples of Mobile Virtual Network Operators**

A good example of Mobile Virtual Network Operator is Sir. Richard Branson's Virgin Mobile in the United Kingdom, Canada, Australia and the United States of America. Another example of a successful Mobile Virtual Network Operator is Elephant Talk Communications. Elephant Talk Communications is an international giant network provider operating in many countries including the Netherlands. Another type of Mobile Virtue Network Operator is known as Valoris and Valoris Telecommunication Practice which operates from Barcelona and Madrid in Spain but serving its clients who are in various continents.

## **Risks of Utilizing Mobile Virtual Networks Operations**

Having discussed how virtual mobile networks operate, it's also good to note the following risks in this type of business venture.

## **Dependence on Contracts**

These business ventures operate without having their network infrastructure thus depends on the contracts agreed between the Mobile Network Operator. This may at times affect their decision making because the interest of the main network operator has to be considered in order to avoid contractual conflicts. More so, on the same note should the main mobile operator be forced out of market resulting to closure; then the mobile virtual operator will be affected directly and might as well be forced out of business.

## **Competition**

The actions of a competitor in any business cannot be ignored. In this service industry, some operators bring in price rivalry through lowering the prices. This is mostly introduced by new entrants who see it as an easy way to try and curve a market niche in the already existing market. This is usually very unfortunate for the firms operating under the same environment but has high fixed costs. This unfair competition might bring its operations down due to lack of sufficient cash in-flows.

## **High Costs of Innovativeness**

Firms operating under Mobile Virtual Operations absorb this risk. This is because in their product line, they have to differentiate their products and services as much as possible and this will help them to stay afloat in the market. This results in much resources being invested in research, innovations and implementations.

## **Switching Costs**

This risk arises where the other operators in the same industry, sharing the same market, allowing the customers in an existing market to switch from one product to another at very low or free costs. This means the firm is forced to absorb these costs and at the same time there is a high risk of losing the existing customers.

## **High Exit Barriers**

Firms operating in this industry invest in some substantial technological resources that enable them to offer their services effectively as well as efficiently. Due to the nature of operation, some of the infrastructures are highly specialized and thus it becomes very difficult to dispose them to any other player in the market. This might force a firm to remain much longer in the market even when not making profits.

## **Substitute Products / Services**

This risk arises due to innovations of new products and services that are very close to the already existing products and services, and, are fully able to satisfy the customers just like the earlier products. This threat sets in when the demand of a product is affected by the change of a price of a substitute product. This brings in elasticity of demand because as more substitute products get introduced, the customers have more alternatives. Therefore, the firm might operate under slim profit margins because this scenario makes it very difficult for the firm to increase prices.

## **Government Barriers**

In normal business operating environments, the rule of Supply and Demand is allowed to prevail in the so called free markets. In some instances the government of the day may interfere with the normal operations of the business through price controls. This arises when the authorities dictates or gives directives and sets the prices of the products in the market. The firms are usually without an option, but to take up the set prices limiting their profits. The government may also from time to time introduce new taxes in its bid to raise its revenues. This becomes a liability that the firms in an industry have to bear (Pentikousis, K. 2009)

## **Expansion / Growth Risks**

This becomes evident when a firm experiences the need for expansion in order to have a bigger market share. This brings in more costs in research, hiring, training among others and so it results in increase of fixed costs. Generally, cash inflows and profits of the firm might be greatly affected. Also, there are risks of unforeseeable future because of the expansions and therefore more provisions have to be set up meaning that the operating cash flows may be affected.

## **Obsolete Risks**

Firms in this industry carry this risk potential because the industry operates in dynamic environments. This explains why so much research keeps on being carried to help better the products and services to help meet the customer's demands. Thus in this communication sector, more machines and technologies keeps on being developed and a firm has to keep up, taking in



more costs in new ventures. More so, machines are highly depreciated therefore resulting to very little resale value. In fact most are disposed at scrap value.

## **Conclusion:**

Mobile Virtual Network providers are very imperative especially in telecoms and the community as well. This can only be realized after proper measures are put in place. Everything has got its own benefits and losses and so are the Mobile Virtual Network Operators. If implemented well, MVNO can be of great benefit to both players involved. A good example of the company that has gained expertise through the investments of telecoms in Mobile Virtual Network Operations is the Valoris and Valoris telecommunication practices. With offices in Barcelona and Madrid in Spain, this company has been able to advise its clients in the Middle East, North Africa Latin America, and Asia due to proper implementation. This is only an example of how Mobile Virtual Network Operator can be of paramount importance in spite of the challenges that are coupled with it.

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