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illustrated by two case studies from
Uganda**

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The becoming of a market – A reflection illustrated by two case studies from Uganda

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Abstract

This paper (9,201 words) argues that there is more to the becoming of a market than income-level of the buyer. A market is a fine webbed institutional setting that is worthwhile for economists to study. It argues that there are five characteristics to look at, namely demand, supply, and beyond the neo-classical model the ability to contract, the location (in space and time) to contract, and the purpose why the market was called into being. The interaction of these five characteristics shapes the development paths of markets. The framework is exemplarily applied to a commodity and a public good market, i. e. fish and minibus (“matatu”) services in Uganda, East Africa since the mid-1980ties.

Key Words

Institutional Setting, Path Dependency, Market Characteristics, Uganda, Fish Market, Public Transport Market

1 Introduction

This is a story about the characteristics of markets. Markets are fascinating, manifold set-ups bringing together supplier and demander in a way, place and purposed order that enable them to carry out transactions. The story is illustrated by two examples, a market for a commodity and one for a public good, fish and transport respectively, located in Uganda, East Africa.

Let us buy some fish. Would we go to a supermarket, or some sea delicacy shop, walk down some rows to where the fridges hum, and make our pick from the choice of sea fruits available? Throw it into our basket and ourselves towards the bus-stop, checking the timetable for the next line that may take us into walking distance of our home. Or would we linger to a market place in town or on the street side, guided to the fish dealers' corner by the smell of their produce, to bargain for some of it. Wave a van to stop for us, or fight with our elbows for a seat in one, inquiring from the conductor where it actually goes, maybe hanging our purchase by the front bumper, if the trip to our whereabouts is somewhat longer.

Most probably, to each reader one of these short illustrations looks familiar and the other one strange. The order that frames a transaction in fish, and a transaction in transport services, is likely to transpire into a different experience depending on the country one lives in.¹ Someone who lives in high-income countries, or in high-income areas of low-income countries, is likely to purchase her fish along the lines of the first illustration. Fish markets do exist (think for example of the famous Hamburger Fish-Market), but they are rather a curiosity here. Whence, for most people in many low-income-countries – for instance Uganda on the shores of Africa's biggest Lake Victoria, which provides the case referred to further on –they will purchase it along the lines of the second illustration. That is if they have the means to get fresh fish, which is not a reality for most low-income-people who go for dried fish or fish parts of lower quality (e. g. heads). And unlike the former, who may or may not rely on public transport, the latter certainly will have no choice, unless their budgetary means would restrict them to simple walking.

Why is the experience of purchasing a food commodity that different? The first shot at the answer has been indicated already, i. e. income-level. Low-income people use public transport means² and queue for smelly and often low-quality-products. High-income people do not. However, controlling for income, the differences are still significant: Stalls, hygiene, product information availed, customer care efforts do all differ between the two places. This regardless of the commodity being the same, say today's catch of Nile Perch from Lake Victoria, sold by the bone.³

¹ Let's disregard here those lucky ones among us who live on the coast and are able to satisfy their demand for sea fruits directly with the incoming fishermen.

² A nasty German saying has it that public transport targets "the four A: Alleinerziehende, Ausländer, Alkoholiker, Asoziale" (Single-parents, migrants, alcoholics, asocial persons).

³ Thus we are controlling here for different products formed from that same catch, e. g. filleted Nile Perch.

The case against income-level as the sole decisive factor is even stronger with regard to a collective good like public transport: While it is by no means restricted to particular poor people in countries like Uganda, the comfort of trains and buses in high-income-countries is much higher despite their mainly serving the poorer strata of society.

The remainder of the paper organises as follows: Section two identifies the elements – "characteristics" of the institutional setting of a market. That framework is illustrated exemplarily upon the cases of fish and public transport markets of Uganda in section three. Section four concludes.

2 Elements of a market

This paper argues that there is more to the becoming of a market than income-level of the buyer. A market is a fine webbed institutional setting that is worthwhile for economists to study. Understanding the elements that feed into the evolution of markets will improve policy advice and, eventually, the well-being of people. If it is true that rich people have markets and poor people have bureaucracies (Easterly 2006), then we should be eager to understand the former and avoid the latter. What then, is a market?

- 1) Is it a place where a number of sellers gather with their stalls to offer their goods?
- 2) Is it an outlet of a (trans)national enterprise where a variety of goods are offered?
- 3) Is it the sum of all products of one kind being offered, or being sold, i. e. a theoretical rather than a geographical place?
- 4) Is it any place and moment whenever a seller and a buyer transact with each other?
- 5) Is it a concept, probably ideological, to organise a given society?

All these proposals are about markets, and apparently they talk about the same things. Yet, at the same time, they also display relevant differences. Let us distil the cross-cutting characteristics and the main differences.

1) and 2) emphasis the location properties of markets. They talk about marketplaces. However, one of them is a private space, owned by a specific enterprise, while the other one is some sort of public space for the sellers to set up their stalls. Actually, many "official" public marketplaces in Uganda often even provide the stalls as a permanent structure. "Unofficial" marketplaces are characterised by very simple, movable stalls (in its most simple form a blanket). In high-income countries, stalls are usually provided by the sellers themselves, often in form of specific vehicles.

The locations and their differences point to another important element: The rules of access. In the case of the wholesaler's outlet, a private enterprise management sets the rules of access for both sellers (i. e. products offered) and buyers. In the case of public places, public authorities set the rules of access. The nature of these authorities may differ strongly from place to place. Often, they delegate their authority to others, e. g. sellers' associations, or even private operators (the latter has become more common in high-income-countries in recent years; but also in the case of the main taxi park of Uganda's capital Kampala, the association has bought

the place from the town council as if they were a private operator). Apart from the formal access regulation, a different informal, factual regulation may exist. So one may find that local governments are formally in charge, but actually a sellers' association commands the power, or even an informal oligarchic group of sellers ("mafia").

The next set of rules is about conduct. These differ substantially between markets. In a wholesaler's outlet, nobody will shout at you, or drag you to a certain stall, or follow you around. Ideally, product prices will be displayed on the shelves, other information directly on the product, or a friendly service officer at the fresh fish-counter will enable you make an informed choice. You rarely find the latter features in the average Ugandan fish market, with the possible exception of a friendly service, but more often than not one or all of the former. And while you may consider that rather annoying, you find people who go to the Fish Market in Hamburg (Germany) exactly for being shouted (and thrown fish) at. A comparable case can be made for the buses. Most Europeans would find it unacceptable if their vehicle refuses to move because of two empty seats. Most Ugandans feel alike, but apparently there is nothing much they can do about it (Ugandan minibus conductors sometimes very literally block the door to refuse passengers getting out of a waiting vehicle). Most Europeans would find it unacceptable to be squeezed by two into one seat. In Uganda, it is quite common, although less so in the capital than in the country side. Somebody may feel tempted to argue that these are "just" manifestations of monopolist behaviour, i. e. lack of competition. But far from that: Apparently, the hassling happens in the places of highest competition, like in the market with many stalls and sellers. Also, the minibuses in Uganda are privately owned and operated, each one is a competitor of the other, indeed drivers' and conductors' income is directly proportional to the number of clients they transport. On the other hand, it is within the "monopolist" realm of the privately owned supermarket where the customer can expect the best service.

Examining 3), 4) and 5), they are about theoretical concepts which are drawn for analytical and eventually political purposes. 3) and 4) refer to the transaction between the one who supplies and the one who demands for a product. Both point to the interaction of demand and supply, from which micro-economic analysis determines the price. While 3) looks at a given product, and would thus allow analysing the corresponding market volume, e. g. in comparison to other products, 4) is the abstract perspective which seeks to identify properties of market exchange wherever a transaction of good against money takes place.

Obviously, 4) carries a lot of implicit assumptions. E. g. in socialist countries, money was mainly a calculation device, but did hardly function as savings device. Although goods were exchanged against money, the prices of the transactions were not established as a result of such exchanges. Thus, the decisions to buy or sell were determined by very different considerations, e. g. political. In a market where the price is an outcome of demand and supply the consideration will dominantly be the value one can get out of the good and the expectations about future prices. Again, there are likely to be significant differences between markets that operate under stable money and markets that operate under high rates of inflation. In the latter, money is not fully functional and that will influence volumes and time horizons of decisions. Again, volumes and time horizons are not only determined by the

properties of money but by uncounted other factors which we may call institutional: E. g. managers with stock options tend to apply short time horizons, employee-owned cooperatives tend to apply a shorter time horizon as the majority of employees reaches closer to retirement age, low-income-people (particularly farmers) tend to buy or sell sub-optimal volumes because they lack appropriate storage devices or because they operate under unstable property rights.

5) is an even broader concept which focuses not on the analysis of supply and demand as such but establishes a political agenda for a certain order which is called market economy, or market democracy. This concept assumes that the term "market" is clearly defined and that that definition should be applied to as many areas of social life as possible. Here, "market" is rather a stand-by-solution to whatever problem occurs, or a banner behind which the "good and upright people" gather. This reminds us of a property of markets that may be implicit in the previous but not observed yet: A market as a form of order is purpose-driven. A market is not an end, although ideology might put that view forward. A market is a means to an end, which may or may not be of ideological nature.

So, the five perspectives form a spectrum of analysis which ranks from very concrete to very abstract. Out of these, we are able to distil five characteristics without which a market is incompletely described. The defining properties of a market is are

- (1) demand, and
- (2) supply, and beyond the neo-classical model
- (3) the ability to contract, and
- (4) location (in space and time) to contract, and last but not least
- (5) a purpose why it was called into being.

The neo-classical model might serve us well as a starting point. Being positioned far on the abstract end of the spectrum, set-up based on strict reductionism, it displays but the very basics of the concept "market". These are demand and supply and price. Supply without demand is waste of resources, demand without supply is poverty. Without setting a price, demand and supply may exist, at least as a potential, but they will not meet.

Price setting is far from trivial. Quite the opposite, it is a process of its own that depends on various variables, such as

- inputs, both quantitatively (how many) and qualitatively (what kind of input),
- transaction cost (following Coase 1937, the cost to apply the market mechanism),
- the place(s) to meet for negotiation, and for delivery, and for payment,
- any other conditions, e. g. earliest or latest point of delivery (e. g. "just in time"), which may be part of the contract.

Arrow (2002) argues that the price is only one among a large number of issues that form the contract between supplier and buyer. He points out that supply and demand are driven by

information available to them, and the cost thereof, and that price alone can never transmit all the information necessary to enter a contract.

Based on this argument, the neo-classical element of price is to be differentiated as follows: On the one hand we look at the ability to contract. This applies a vector of information, whichever out of the list above that may be in concrete cases. The price is one element of that vector of information.

On the other hand, we look at the place(s) to contract. Obviously, this could be treated as just one among the elements of the ability to contract. Yet, it is regarded as outstanding for two reasons: One, attention shall be drawn to the fact that every market has a location in space and time, and that a change of that location is a significant modification of the institutional setting, i. e. the market looked at. Two, without such a location in space and time, no contract will ever be signed, and consequently no market will exist. For any other element of the contract, we could imagine that it might be relaxed or stretched or substituted. Indeed, we find that many contracts are incomplete, and open questions are settled as they arise, rather than fixing every eventuality in advance. This often holds true even for the price. E. g. in the case of public transport in Kampala, you may find yourself in a price negotiation at the end of the journey, i. e. after consuming the service.

Thus, starting from the neo-classical model, we identified the basic elements, or characteristics, to form a market. We can differentiate three ways in which these elements of markets might differ:

- 1) The volumes and "species" vary: This has been analysed for demand and supply in-depth by neo-classical microeconomics. For the ability to contract, most attention of economists had been given towards the freedom to set prices. Only relatively recently has the institutional perspective, which looks at the broader conditions of ability to contract, gained more popularity throughout the field of economics. As for the locations, they have been neglected theoretically, but of course provided the basis for empirical research.

We may think of markets as transaction determined by choice, as opposed to transaction determined by order, or by "abundance". From that angle, the market is a middle section of a continuum that ranges from hierarchy on one extreme and "abundance" on the other end. This middle section is constituted by an institutional setting which determines demand and supply and their ability and location to contract, and the purpose of the transaction order.

- 2) One or more of the basic elements may be fixed or substituted: None of the five characteristics can be dropped (or missed). This is because the purpose of the market is a transaction. Without one of the five, transaction is no longer possible. But a market without transaction would be pointless – just as some people may feel that baking without sugar and eggs is pointless, although it is theoretically and practically possible. However, one or more of the basic ingredients might be fixed: It does not react whatever changes the

other undergo, at least for a long⁴ time. E. g., the location of ivory trade appeared fixed over a long period of time, being one driving force of the rise of kingdoms in Northern Africa, e. g. what today is Central and Western Uganda, and to Arabic and Indian influenced kingdoms like Zanzibar on the coast. In fact, classical economics does implicitly just that: It declares location of markets as fixed, and thus irrelevant for analysis. This trick is known as the condition of *ceteris paribus*.

A significant part of classical microeconomics is devoted to the study of fixed supply or demand inputs of markets, resulting in bizarre, and eventually inefficient decisions about quantities of production, or consumption, or about price-setting. In the end, the more absolutely inputs on one side of the market are fixed – the less elastic supply and/or demand are – the more will the market resemble monopoly.

The ability to contract may vary heavily in different environments. Cost of infrastructure (roads, electricity, telecommunication), availability of human resource, security of life and/or property, cost of administration (how are laws enacted, understood, enforced, maintained), and others more can handicap – i. e. fix – the ability to contract seriously. Also, all these factors are inter-linked with each other (e. g. low level of security results in high cost of administration and/or infrastructure results in low availability of human resource). Maybe, the complex net of causes and effects has shielded economists away from analysing these factors with the same rigour they turned on handicaps of demand, supply and price. As much as that rigour has its analytical merits, it should not blind economists for those factors.

If markets are rooted in space and time, variation of market characteristics effects to path dependency. Other than the Marshallian model suggest, each variation implies a set of experiences and imprint on the institutional setting. This set of experience will add to the development of the market and influence later decisions and experiences. Combining the perspective of path dependency with the five characteristics defined, we easily embark on a life-cycle perspective of the market. The analytical framework of the life cycle has been proven powerful in business studies. It is meaningfully applicable to markets as well (e. g. Porteous 2005). Though implicitly embedded in the following illustration, it is not in the scope of this paper to explore it further.

3 The cases of Ugandan Fish and Public Transport markets

3.1 Background

Shortly after independence 1962, Uganda embarked on a socialist economic order. In the course of the military and authoritarian regimes of the 1970ties and 1980ties, most economic transactions other than subsistence vanished. Corruption became endemic at all levels, and Ugandans have witnessed at one point or another practically each public agency and/or

⁴ We shall not go into the definition of "long"; just assume it is established in relation to what human perception of time would usually feel to be long.

anonymous social system going defunct and/or breaking down.⁵ Since 1986, the incumbent government has established a market economy; most economic transactions were subjected to a liberalised, private-sector mode.

Within the past ten years (1994-2004), the number of vehicles in Uganda tripled. The fastest growing category were motorcycles with a rate of more than 600%, followed by Pick-Ups/4 WDs with a growth rate of approx. 200%. Still, the motorisation rate is only eight persons per four-wheel-vehicle. Up to 2020, average annual growth rate of Ugandan traffic is projected at about 7%. Most of it is accounted for by the Central Region with the Capital's "Greater Kampala Metropolitan Area" at its heart. Employment of the transport sector is estimated 0.8 million, it contributes approx. 4.5% of the GDP.⁶

Uganda, being located on the coasts of 4 of the biggest lakes of the continent, is the biggest African exporter of "inland" fish, i. e. fish from sweet water lakes. The fishery sector has grown strongly since the early 1980ties, due to the introduction of the Nile Perch into Lake Victoria. Banks (2003) calculated that the fishery sector 2002 contributed 12% of GDP.⁷ Roughly 60% are generated from the domestic market, 40% are generated from exports of mainly Nile Perch. Over one million Ugandans earn their incomes from fishing, fish trading and processing.

3.2 Public Transport in Uganda⁸

Supply Side

Before 1986, public transport supply which was de jure in the hands of government agencies had de facto broken down. After 1986, following the declaration of a private sector-driven market economy, the volume of investment and corresponding passenger capacity in Uganda's public transport market shot up.

Today, the bulk of the supply side of public transport comprises of "matatus" (minibuses), buses and motorcycles (car taxis left aside). They account for nearly half (46%) of the traffic on Ugandan roads – it is assumed here that Kampala fairly mirrors the national picture. Matatus are minibuses known as 7-9 seaters in high-income-countries, but in low-income

⁵ Latest corruption data indicate a slight decrease of corruption relatively to many African countries (Transparency International 2007).

⁶ The employment estimate is based on three sources: Howe (2003) indicates that 1.7 million people receive part of their livelihood from cyclist-taxi-services, with each operator supporting five dependants; Kamuhanda/Tanburn (2005) give numbers of various vehicle categories on Uganda's roads; Baker (2004) states that UTODA membership stands at 60,000.

⁷ The official GDP-contribution of fisheries is however only 2.4%. Banks (2003) argues that it is greatly undervalued because of inadequate baseline-data. Along the same lines, FAO (2003) notes under-reporting of fish-production particularly from water bodies other than the Great Lakes and illegal Nile Perch catches. Note that FAO indicates employment in the Ugandan fishery sector with 700,000 people in 2001, while Keizire (2006) estimates approx. 1.9 million.

⁸ The data referred to in this section is sourced from the study of Kamuhanda/Schmidt 2006 (with further references).

countries like Uganda they officially carry 14 passengers plus 2 staff (driver and conductor). In fact, outside the capital they regularly carry 18 passengers. Note that children usually do not count in their own right, as well as chicken or baskets of merchandise, fish, or the like. All those are added towards the number of passengers (unless a parent pays a shared seat for 2 or 3 children; and unless fresh fishes are tied to the bumper). The number of matatus grew by a rate of 250% between 1994 and 2004. Their share of total vehicles on the road remained pretty much stable with approx. 14%. By passenger capacity, the matatus are by far the most important means of transport, standby capacity is estimated at 300.000 seats, more than 3 times the capacity of motorcycles and about 6 times the capacity of buses.

Recently, Kampala's mayor has announced plans to replace matatu services by a monopoly bus service, with 30-seater-vehicles operating through a fixed system of stages that connect the suburbs with the city centre (Gyezaho 2006). That plan is hampered by the fact that the capital's public administration (known as KCC⁹) is not authorised to change the market setting of public transport; that is determined by national legislation. Implementation of the KCC-plan will depend on two levers – at least theoretically. First, it owns the stages around the city. Second, KCC has authority to regulate the traffic flows into the city centre. It has indicated that they intend to introduce a road licence system that will render unattractive any transport into the city centre other than their buses.

However, there are some practical hick-ups to be overcome. On the one hand, KCC already attempted implementing a corresponding regulation for the motorcycle-taxis ("boda-bodas"). So far, no visible change apart from "chic" (sponsored by one of Uganda's three leading mobile-phone-network-providers) sign-posts for boda-boda-stages has been recorded. Anecdote has it that a licensing campaign for boda-bodas is going on. The declared aim of reducing the number of boda-bodas is nowhere to be observed.

With regard to matatus, this gives a taste of the change of institutional setting intended, as matatu drivers operate already under a functional license-system, enforced by "Uganda Transport Operators and Drivers Association (UTODA)". The legal position of matatu operators is therefore likely to be stronger than that one of boda-boda-cyclists, and their organising body UTODA is unlikely to give away any of its role. This role entails significant financial flows; at least. 900,000 Euro per month.¹⁰

Furthermore, the 125 stages around Kampala are operated by UTODA, as well as most stages all around the country. More importantly, UTODA legally owns the taxi park which is the central point of most matatu connections within Kampala and all matatu connections between

⁹ Kampala City Council.

¹⁰ 50 Euro per stage staff per day are collected from the stopping vehicles; by conservative estimate there are 250 stage staff, i. e. 375,000 Euro per month. Furthermore, monthly membership fee (which comes with a vehicle license) is 9 Euro per each of the approx. 60,000 UTODA-members, i. e. 540,000 Euro. Note that the reported 2 Euro per day for each vehicle entering the taxi park are not included in this calculation (data according to Kamuhanda/Schmidt 2006).

the capital and the "rest of the country"; for the latter, UTODA again operates and/or owns most of the central taxi parks.

Demand Side

Traditionally, practically all Ugandans were part of the demand side of the public transport market, with the exception of the very rich (like ministers, heads of the big clans and the like) who could afford their own cars. For most of the life-span of the Republic of Uganda, real costs of public transport – that is factoring in time, inconvenience, risk – were prohibitive because of the constraint supply volumes. In the 1970ties and 1980ties, these real costs translated into a huge unmet demand, i. e. constraint mobility. The constraint was (mostly) removed for urban and semi-urban populations with the liberalisation of public transport provision, and consequently the transaction volume multiplied while real costs came down. However, for many rural areas, the constraint of mobility has only slightly eased. Reason being that there are hardly any profitable business models for providing public transport to scarcely populated areas (Kamuhanda/Tanburn 2005, p. 44/45).

Up to today, the overwhelming number of Ugandans both urban and rural relies on public transport, if not their own feet. 91% of respondents of a matatu-passenger survey indicated that they do not own any means of transport. Kampala citizen spend approx. 17% of their income on matatu fares, equalling about 2 hours per day on the matatu. The full public transport share stands at approx. 26% of income. Considerable differences are recorded for different social groups, though. Women and young people spend close to a third of their income on matatu fares, the group of unemployed (students and housewives) about half.

Since the 1990ties, regular salary based income has increased considerably both in terms of number of salary earners and in terms of salary amounts. They are paid by banks, telecommunication companies, high-end shops and service providers, and above all by internationally based and/or funded non-governmental organisations (NGOs). These salary-earners are eager to drop out of the public transport realm and to drive their own car. This is reported particularly strongly for men – 58% of male respondents of the matatatu-passenger survey report intention to purchase their own means of transport.¹¹ Although private vehicles account for the lions' share of traffic growth, they are really concentrated in a few urban areas (and congesting roads there).

Ability to contract

Before 1986, the legal and actual ability to contract a public transport provider was severely restrained, for many years prohibitively so. This was documented by

"[...] long queues, and sometimes people waiting overnight at the bus park, or bribing the operators to get a seat. The buses were usually overcrowded and dirty, and the operators rude. In addition, the buses were poorly maintained and often broke down along the way. [...] a journey that now takes 5 hours used to take two days." (Kamuhanda/Tanburn 2005, p. 44)

¹¹ According to the author's observation, though, owning an own car is particularly important for women to experience personal, social and economical independence. This is supported by anecdotal evidence from projects that provide village women with bicycles. No in-depth-exploration of this nexus has been known of so far.

Furthermore, travelling was regularly dangerous because the government failed to provide security. Theft and robbery, mostly by police and other government agents, sometimes in collaboration with the transport providers' staff, deliberate roadblocks from local mafias and marauding militias, and for many years "collateral risk" of civil war were accompanying features of moving within Uganda. By the early 1990ties, the incumbent government succeeded in establishing security in Central, South-Western regions and eventually Eastern, Western and West-Nile regions. Northern and North-Eastern Uganda (accounting for an estimated 25% of the population) however have not tasted the fruit of such achievement up to today.¹²

UTODA was formed in 1986 for the purpose of expressing their members' interest in improved security. With the lifting of legal constraints of contracting public transport services, UTODA grew fast to approx. 60,000 members out of which 30,000 in Kampala around the year 2002 (Baker 2004). It was able to acquire the role of the main regulator of public transport, through owning taxi parks, operating stages, determining fares and – most importantly – being part and parcel of the (cash flow of the) licensing system. This system apparently roots in UTODA being contracted tax collector for KCC.

While quantitative supply of public transport is now driven by demand, quality remains a strong concern. The number of injuries through road accidents tripled over the 1990ties (from about 4,000 to about 12,000), out of which around 2,000 are fatal. Reasons given for the rampant lack of road safety are defective vehicles, poor road conditions, drug-abuse and "dizziness" of drivers (Wamboga-Mugirya 2000). The fact that driving licenses are not given out based on driving performance, and that driving lessons, if taken at all, are regularly taken "on the job" is unlikely to offer any comfort. All these transpire from structural inefficiency of the responsible government agencies (Kamuhanda/Tanburn 2005). Passengers indicate that cheating on fares and safety are their biggest grievances. UTODA is supposed to address such through its park and stage operations, e. g. inform passengers about fares and handle passenger's complaints. But passengers are only partly aware of this role, and they do not trust UTODA to implement it.¹³

The formal freedom to contract with passengers for public transport services has emerged to be the core of a subsequent array of contractual relationships. Vehicle owners contract drivers on a performance basis. The driver has to submit a fixed daily share of the revenues; he¹⁴ has to provide fuel as well. Judging by the poor mechanical state of most vehicles, neither side

¹² Besides the armed groups operating in those regions, government through its military bodies is itself a source of insecurity and brutish, sudden death for various citizens there. Since 2006, considerable efforts for a bid to establish security are made in the North, namely through direct negotiations between the governments of Uganda and Southern Sudan and the bloodiest militia of the area.

¹³ Indeed, UTODA was not even able to provide the researchers with an overview of its routes and corresponding fares, or any other fare system.

¹⁴ Matatu drivers are de facto exclusively male, but there are a few female car-taxi drivers nowadays.

systematically takes care of maintenance costs. The driver contracts a conductor¹⁵ who manoeuvres passengers into the vehicle, "informs" them about fares, that is tries to arm twist them into fares higher than regular, effects the fare payment – usually towards the end of the passengers' ride –, and also signals stops to the driver. The latter is important because matatus restrict themselves by no way to stopping at defined stages; rather they stop wherever somebody wished to board or unboard. The conductor contracts stage "brokers" to channel would-be-passengers into their vehicle. While the previously discussed relations are relatively stable at least in a medium perspective (assuming the vehicle does not break down), this one is rather ad-hoc. That means the conductors just rely on the brokers they find at the different stages without individually relating to them. These brokers actually offer a variety of services like informing passengers about vehicles' routes and directions, supporting UTODA-stage-personnel in blocking passengers from selected vehicles (which failed to pay licence fees), carrying passengers' baggage (in directions of either the passengers' or their own choice), spending tourists and other lost-looking-fellows company and spiritual guidance. Last but not least, drivers are contracted to UTODA to pay regular license fees (per stage, membership monthly, see footnote 10) of approx. 6% of the average daily matatu-turnover. For this payment, they are provided with (theoretically) exclusive rights to operate, to stop/board at the parks and stages including maintenance of those, and to participate in a basic social security system in case of temporary unemployment and sickness, and access to salary loans, and taking care of their KCC-taxes.

The indicated hierarchy is affirmed by the social and economic biographies of the parties. Stage brokers aspire to become conductors, conductors to become drivers, drivers to become owners. 40% of drivers (Kamuhanda/Tanburn 2005, p. 47) have achieved their aspiration; other owners are usually salary earners. Conductors are on average younger and lower educated than drivers. About 60% of drivers come from a car-related background, e. g. mechanics. About 70% of conductors got their job through personal relations, regularly to a driver, and/or backed by their fathers' intervention. No driver or conductor aspires to become UTODA-stage-personnel, yet more or less all UTODA stagers are former drivers and/or conductors. They are on average older than drivers. They are perceived as a kind of failed role-model, as they are referred to with disregard by drivers and conductors (and also passengers), and complain themselves about abuse by drivers and conductors. The fact that many of them are actually successful matatu-owners is apparently not known.

Summing up, the ability to contract public transport services in Uganda has evolved from practical non-existence towards a system of contractual relationships within which UTODA is critically embedded. This system encourages investment into appropriate vehicle capacities, though poorly maintained. Thus, direct mobility is provided to urban Ugandans for most destinations at nearly any time, and to rural Ugandans for major destinations at some times. This mobility is of low quality in terms of safety, comfort and respect of consumers, particularly outside urban areas. It is however a highly commendable improvement compared to the first 25 years of the Republic of Uganda.

¹⁵ In West-Africa, conductors are known as "apprentices".

Location

The place of a public-transport-contract is, obviously, the vehicle. In the liberalised environment of Ugandan matatu services, the consumer and the service provider enter into contract by facultative action that is the consumer enters the vehicle. This is different from monopoly service providers which are common in many European Countries. Here, the location of the contract is at the stage where the consumer purchases a ticket. Ticket provision in the vehicle is usually only "fall-back-position" for the consumer.

In the light of the previous discussion, the location of contracting is critical for the shape of the whole sub-sector: If consumers repaired to contracting at the stage, they would either desert to the KCC buses or they would force the private operators to subscribe to a central ticket system. Such a system, however, would change the mode of operation of the matatu: One, the conductor would no longer handle cash but only control (probably devalue) tickets; that means that the whole process of price negotiation would vanish. It would be interesting to see if this resulted in a change of effective matatu fares and in whose favour. The hypothesis is that the conductors would lose out because variations from the standard prices are likely to form a rent of theirs (with a possible share of the drivers). Alternatively, conductors could try to arm-twist customers into submitting more tickets than standard. But if the standard fares were communicated at the ticket sales offices, this option would be less promising – because of increased transparency – than the negotiation outcome under the decentralised system.

Two, under a central ticket system, conductors and drivers income would be based on the number of tickets they collect – i. e. there would be a considerable incentive to present false tickets to the clearing house. If this could not be controlled for, the system is likely to break down; it would be a variation of the "tragedy of the commons". Commons depend either on an effective sanctioning mechanism – controlling for false tickets – or a strong commitment of the members. Given the historical Ugandan experience as well as the current bad image of (the likely operator of a central ticket system) UTODA, such a commitment is highly improbable to emerge.

In effect, it can be concluded that changing the preferred location of contract from the vehicle to the stages would change the subsequent contract structure as well. A streamlined salary structure for drivers and conductors would have to emerge, because they would be no longer in power of setting their own income. Through such a streamlined salary system, the incentive to drive outside the pre-defined routes would eventually disappear, because such rides would no longer yield significant income. Instead, drivers and conductors would find incentives to minimise the time they spend on earning the streamlined salary. I. e., they would try to get the high passenger-volume-rides such as in the mornings and evenings. Altogether, we might observe a dynamic towards bigger companies with well-managed vehicle-parks and human resources. This may or may not be the KCC-bus-company. Only the city-traffic-regulation would work in their favour. The stage regulation (central ticket system) is likely to eventually give rise to more efficient private competitors, given the totally pitiful management capacity KCC has displayed so far.

Purpose of the transaction order

The core purpose of the order governing public transport transactions is to expand the volume of public transport. The volume of public transport is a close proxy of mobility in Uganda. Mobility is a pre-requisite of a market economy. Expanded mobility induces expanded economic transactions and thus generation of income. In a setting of a low-income-country like Uganda, market expansion should be pro-poor, i. e. allow over-proportional market access to low-income-earners.

On a narrower note, the purpose of the transaction order is to sustain income flows of the main bodies involved. These are UTODA and (aspiring) KCC. There is a high potential of conflict between UTODA and KCC, and the outcome of that conflict will shape the evolution of the public transport market of Uganda. From the point of view of passengers, drivers and other personnel involved, a development towards bigger providers may offer better quality of both service provision and workplace conditions. However, the experience with big organisations in Uganda has been largely disastrous, so both passengers and employees of the sector have reason to be suspicious. Neither UTODA nor KCC have a record of pushing the market towards better service or workplace conditions.

Among the operators, the potential to drive the market towards better services and workplace conditions might exist, but their influence on the institutional setting appears to be limited. In the short run, a combination of investing into vehicles with bigger volumes (30-seater) and raising consumer demand for improved safety might be the most promising strategy.

3.2 Fish market(s) of Uganda

Supply side

Fishery has a centuries-long tradition on the shores of Uganda's lakes and water bodies (swamps, rivers, minor lakes). Local fish processing – smoking, sun-drying, salting – avails fish to markets beyond the reach of fresh products. They are traded as far as Sudan and DR Congo.

The volume of fish landed has grown by over 60% over the 1990ties. For 2003, roughly 245,000 tonnes are reported, out of which 19,000 tonnes were exported (FAO 2003). Fishing follows both traditional and modernised technologies. The former is characterised by multi-gear, artisanal canoes and gillnets. The latter is characterised by motorised vessels and mechanised trawling, it targets exportable species, mainly Nile Perch. Several industrial fish processing plants have been set up. They are a driver of foreign direct investment volumes received by Uganda.

Concerns are raised permanently that introduction of alien species and over-fishing may lead to an ecological collapse of the lakes and effect in a significant decline of fish supply.

Demand side

Practically all Ugandans, with exception of a few pastoral communities in the Eastern and Western region, are consumers of fish. 17 million Ugandans draw high-quality-protein from fish. It provides 50% of Ugandan animal protein consumption. Fish is particularly relevant to the diet of rural poor of which fishing communities form a large part (Keizire 2006).

With one of the fastest growing populations of the world, there are concerns if Uganda will be able to meet fish demand at the current levels (Keizire 2006). At the same time, it has been observed that the export demand has crowded out domestic demand. Export species have become prohibitively expensive for locals. This has led to increased supply of undersized fish and low-quality industrial plant by-products (e. g. fish heads) in the domestic markets (FAO 2003).

Overall, an uneven development is recorded: On the one hand, the Ugandan economy has been growing steadily since the early 1990ties, with the fishery sector being one of the growth drivers. Mainly Urban Ugandans in Central and Western regions have profited from the economic prospect. They have sustained their fish consumption and access processed frozen or chilled fish from a growing number of supermarkets. On the other hand, there is scepticism if the growth has been pro-poor. Poverty indicators have been stagnating or even going up in recent years. Mainly Rural Ugandans are affected by price increases for (high-quality) fish that is targeted by exporters and have to repair to low-quality products.

Ability to contract

Sales and Purchases of fish have never been substantially framed by public regulation. This is reflected by the observation that the countries bordering the lakes have largely failed to coordinate and restrict the fishing volumes. It is further documented by several import bans from the EU towards Uganda at the end of the 1990ties. The EU had detected or suspected contamination with bacteria such as Salmonella, cholera germs and pesticides respectively. During the bans, major parts of production and processing capacities were rendered idle or closed down. A number of structural shortfalls to meet hygienic and other food quality standards of the EU were identified, e. g. lack of laboratories, lack of upgraded landing sites, lack of hygiene standards in fish handling throughout the chain (Balagadde 2003).

Only in the 1990ties did attempts take off to design and implement a framework that addresses concerns for health and environment. The regulation focused on the fishing devices applied – boats, nets, etc. While government agencies strengthened their control over adherence with the regulations, fish processors who purchase great volumes insisted on quality standards and supported their monitoring, particularly with regard to control for germs and other contaminants. A number of development agencies assisted technically and financially in these efforts (FAO 2003). Their impact is reflected by the EU eventually lifting its ban early 2000.

The impact of regulation is of relative significance, though. With regard to domestic marketplaces, sales and purchase of fish go still widely unimpressed by those. Quite different from this, the array of subsequent contractual relationships has undergone considerable changes. Fishermen and dugout owners are losing ground to owners of commercial fish vessels and their specifically trained crews and to traders. The former are constrained in their economic activity because they cannot afford to meet the device and procedural requirements and are thus sidelined from the profitable export market. This further promotes the high-risk properties of their life styles, i. e. mobility along the lakes' shores, high-fluid family lives, high consumption levels of alcohol and sex-for-sale. These fishing communities record sub-

average figures on various poverty indicators and significant over-average HIV/AIDS prevalence-rates (Tanzarn 2006). Another indicator for the difficulties of coping with economic change is the high level of illegal and unrecorded fishing. It is estimated up to two third of the average annual Nile Perch catch (FAO 2003), part of which is likely to end up in the export market. This may be the explanation why fishing communities indicate increased and more stable revenues despite the challenges mentioned before. Also, traders buy at more favourable prices over all species (Namisi 2002).

Furthermore, about half a million Ugandans have found employment in fish processing plants and miscellaneous support activities, e. g. production of fishing nets (FAO 2003). They have also been able to access quality fish products. Through capital intensive facilities, processors have established themselves as "gravity centres", around which traders and fishermen are contracted. Also, local fish processors are now contracting with them to process the latter's "left-overs" for domestic markets.

It is likely that the "grip" of the regulatory framework will tighten in future. The level of production (fishing) is at full capacity for Lake Victoria; expanding capacity of the numerous other water bodies is one option to ensure high volumes of exportable fish and thus keep the investments of fish processors profitable.

location

The location of contract is more or less gradually shifting from fishermen to boat owners. These in turn contract the crews on a more regular basis than before. This trend is expected to eventually expand throughout the country to all water bodies that can sustain bigger vessels. For smaller lakes, rivers and swamps, traders are likely to take that role, buying from the fishermen while ensuring quality standards on behalf of processors. Processors through their big plants have acquired a central position. Urban Consumers are graduating to buying processed fish from supermarkets which have purchased it from the processors.

With the establishment of the export market, a significant volume of Ugandan fish is now contracted for internationally, mainly Europe. Slowly, the quality standards demanded by European buyers transpire into the subsequent contracts, e. g. working conditions of boat crews.

The re-location of contractual relations does only regard a segment of the market, though. The other segment remains widely unchanged, with ad-hoc contracts as catch is at hand of fishermen and consumers, small-scale-traders and local processors. This segment faces degradation of the quality of its products.

Purpose of the transaction order

The core implicit purpose of the Ugandan fish market has always been access to protein-rich food for consumers and to sustain the livelihoods of suppliers. However, not much policy attention has been paid to both ends until relatively recently. Over many generations, fishing communities were left on their own (Tanzarn 2006), as well as fish found its way to consumers on its own.

The situation has changed with the fish market evolving into a major engine to generate foreign currency income and attract foreign direct investment. Recent shaping of the market order has been largely driven by these purposes. Indeed, it is by the observed crowding-out effects of fish exports that the original purposes have been recognised. Environmental and developmental efforts are geared to accommodate food security along side economic opportunity. They also attempt to ease the burden of social and economic change that the fishing communities face.

4 Concluding Remarks

"I think we should try to develop generalizations [...]. But such generalizations are not likely to be helpful unless they are derived from studies how [...] activities are actually carried out within different institutional frameworks. Such studies would enable us to discover which factors are important [...] They are also likely to serve another purpose by showing us the richness of the social alternatives among which we can choose." (Coase 1974)

Markets are rooted in space and time. They are complex institutional settings which allow suppliers and demanders to transact successfully. Technological and social fabrics frame volume and qualitative properties of transactions. However, changing volumes and qualities feed back on technological and social fabrics.

The structure of supply and demand is an obvious entry-point to the understanding of markets. They are, however, much more complex than neo-classical analysis tends to suggest. They are contingent to historical experiences, and these shape their path of change.

Supply and demand of a given market cannot be understood without analysing the role of "government". This term is really not more than a rough approximation of all collective arrangements into which supply and demand are embedded. The mainstream of economists has turned a blind eye to this part of individual reality. Reason being presumably that for a while the purpose of markets became purely ideological, marking the water-shed between freedom and individualism here and suppression and collectivism there. A strong lesson of the illustrative cases above should be that markets are always social enterprises. As such they – ideally – pair freedom and collective action.

As neo-classical theory assumes, the role of government in a narrow, formal sense may be more limited for "private" goods than for "public" goods. But its limitations are hardly determined by economic efficiency. Nor does the level of government role tell us much about the outcomes of the market. In Uganda, government had a strong role in public transport, as public good theory would generally justify, but it did not perform. In fishery, government had a weak role, as private good theory would generally justify, but it did not perform. The "real issues" are rooted somewhere else: One, the historical background and development path from which the government in question comes, and the level of capacity to perform resulting from this context. In the case of Uganda, the background is turmoil, nepotism and military dictatorship, and only very recently (since the mid 1980ties) has there been an idea of a different experience, namely security, rule of law and civil government. Two, the purposes of the market order drive its set-up, and among those economic efficiency ranks low. Government should be pre-occupied with food security of its people, but as the example of

the Ugandan fish market shows, this is often a by-the-way. Government should be pre-occupied with transport security (particularly to the background of a bad health system), but as the Ugandan transport market shows, it sometimes hardly is. Obviously, the purposes of a market order and the historically contingent capacity of government are related. There are policies for transport security in Uganda, but the responsible agencies widely fail to implement them. There have been measures to improve health standards of Ugandan fish products, but they are driven by the capacity of the buyer rather than that of the Ugandan government. Which again opens the perspective to another nexus: The buyers are somehow driven by the governments that represent their consumers in Europe; their investment is also somehow driven by the achievements of the Ugandan government in the area of security, i. e. a certain level of performance. A sad irony is that the health claims of European consumers have decreased food security of some strata of Ugandan consumers.

Neo-classical economists may argue that all this comes down to income levels. Health is a scarce product, rich consumers get it, poor consumers do not. Or: Ugandan consumers value health less than European consumers, therefore the latter demand (pay) for it, the former do not. Either way, this is neither very convincing nor very relevant. Sen (2000) has shown that it is erroneous to conclude from "not demanding" on "not important". He also argued that knowledge creation (e. g. about health issues) is a collective, discursive process which to a great deal is determined by public structures and conditions, a point conclusively argued out by Habermas (2007). Moreover, if health was less important to Ugandans than to Europeans, we would really want to know why. Maybe because their life expectancy is lower? Letting alone that this is a sort of circular reasoning (life expectancy being a function of health care), it would phase the argument down to affordability. Now, we would not accept affordability as a final reason either, but want to know why? Here, the "income-level" argument ends up in another circular reasoning, saying that poor people are poor because they are poor. So this takes us back to the analysis of "government", in the wide sense of all collective arrangements that shape economic transactions.

These are the infrastructures upon which the market's transactions rely. The ability to contract offers an entry-point to analyse them. It allows – demands – for considering the laws and customs that shape contract negotiations, codification of contracts, enforcement mechanisms. Examples are written or verbal contracts, payment and transport systems available, performance of courts or other mediators, expropriation risk, and so forth. If the only transport facility of fish is a minibuss bumper, the contractual rules know only verbal agreement and the only payment mode instant cash, then scale and scope of the market are limited – unless the fish is treated to last, as local processors do. But if fish can be transported in frozen format, and contractual rules know written agreement that binds over time, and payments can be issued through accounts and electronic wiring, then scope and scale of the market expand.

Infrastructures are bundles of technology and collective action – rules are per definitionem collective.¹⁶

A critical factor of the shape that a market takes is the organisational level of its suppliers and demanders. In the example of the transport market, the option of bigger suppliers will determine the future path of that transaction order, as in vehicles applied, contracts given to drivers and contractors, the chance to establish a centralised ticket system. In the example of the fish market, the appearance of bigger processors – buyers – changed the production technology applied (nets, boats), which is changing the contractual relations of fishermen, boat owners and traders, and the product segmentation (beyond un-processed fresh fish and conserved fish, there is now processed fresh fish and processed low-quality fish). The organisational level of suppliers and demanders emerges in interplay with the infrastructure. The interplay forms the institutional setting of the market. This opens the perspective that companies are just one of the organisational options an institutional setting offers at one point in time or another. The asset these options draw on are not well understood yet, it is mostly discussed as "social capital" (see e. g. Dasgupta/Serageldin 2000). Another entry-point to this perspective could be a life-cycle approach (see e. g. Porteous 2005).

A concluding remark shall be made on didactical aspects of the story: If the concept of a market and analytical framework proposed here is appreciated, this gives rise to a calling for change of economic teaching. The starting point should not be the threat of mathematics and subscription to egoism (labelled "individual profit maximising"), but curiosity and astonishment about the experiences of real life, such as the ride on a bus for the purchase of a fish. It should promote the "richness of the social alternatives among which we can choose" rather than shooting it down in the name of abstraction. Indeed, economic teaching would have to emphasise thorough observation and description. Identifying general pattern and transforming them into formal theory would only be the second step. Marshallian diagrams that are nowadays preached as core and concentrate of economic knowledge would only be an illustration of this second step; really only a support device for the journey back from the theory to real life, to test its practical impact on understanding the world we live in and on making choices for us and the people we live with.

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¹⁶ "An individual adopting a rule alone does not, by definition, establish a standard. He can differentiate his product and his factory, he can build a reputation for quality, reliability, and good management, but he cannot rely on a shared agreement that extends beyond the sphere of his personal reputation." (Casella, 1996, S. 123)

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Urban Poverty in the Perspective of Mobility Services: A Case Study of the Public Transport (minibus/"matatu") market of Kampala, Uganda

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1. Introduction

Transport is a crucial ingredient in modern economies and societies. "Modern" means here that economies intensify and institutionalise labour division, breaking up production processes alongside specialised functions. Alas, "modern" societies demand a workforce that is mobile by mindset as well as by physical means. To cater for these, transport systems (infrastructure) and services need to evolve into one of the specialised sectors of economy. Where transport sectors fail to perform, the change towards modern economies and societies is distorted, leading among others to prevailing poverty.

The dominant feature of modern societies is urbanisation. With the establishment of specialised markets and labour division, people tended to create and move towards urban areas, i. e. to agglomerate production and consumption.¹ In 2000, about 47 percent of the

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¹ In 1800, only 3 percent of the world's population lived in urban areas. By 1900, almost 14 percent were urbanites, although only 12 cities had 1 million or more inhabitants. In 1950, 30 percent of the world's population resided in urban centers. The number of cities with over 1 million people had grown to 83. In 2000, there were 411 cities over 1 million (Hove 2006). For an overview of economic theories of agglomeration and its drivers see Suntum (1999).

world's population lived in urban areas, about 2.8 billion. High-Income Countries count about 76 percent urban population, while 40 percent of residents of Low-Income-Countries live in urban areas (Hove 2006). Alongside with the economic and social merits of urban live ("Stadtluft macht frei" [urban air sets free] as the old German adage goes), it has given rise to particular challenges to human security, health, environment and other factors of decent living. It is expected that 60 percent of the world population will be urban by 2030, and that most urban growth will occur in less developed countries (Hove 2006).

The purpose of this paper is to identify the relationship between urban poverty and a market for urban public transport services. Section two highlights some empirical and theoretical insights on urban poverty. Section three gives a short overview over the market under study which is the minibus ("Matatu") market of Kampala, the 2.3 Mio²-capital of Uganda. Section four lays out the empirical research carried out. Section five discusses the impact of the reference market on the poor of Kampala in terms of income. Section six discusses the impact of that market on the poor of Kampala in terms of mobility. Section seven concludes.

2. Urban Poverty in a nutshell

2.1 Empirical insights³

By 2007, one out of two humans around the world will be living in an urban area. Mankind is leaving its rural roots behind, roaming the streets (and potholes) of the city. UN-experts have coined the term meta-city to describe the thus-far unknown level of urbanisation. Meta-cities are agglomerations of 20 million people and more – that equals the populations of Denmark, Norway and Sweden combined.

Yet, up to half of the urban folk will be living in slums. In Africa, the urban poor account for about 70% of the urban people. 95% of population growth is met by urbanites. The number of slum dwellers increases by 27 million annually. Soon, the biggest cities of the world will be in low-income-countries, e. g. Dhaka, Bangla-Desh or Laos, Nigeria.

Currently two-thirds of Africa's urban population live in informal settlements without adequate sanitation, water, transport or health services. In many Sub-Saharan African cities, children living in slums are more likely to die from water-borne and respiratory illnesses than rural children. Women living in slums are also more likely to contract HIV/AIDS than their rural counterparts. For example, in Ethiopia, child malnutrition in slums and rural areas is 47 per cent and 49 per cent respectively, compared with 27 per cent in non-slum urban areas. In Brazil and Cote d'Ivoire, child malnutrition is three to four times higher in slums than in non slum-areas. In most Sub-Saharan African countries, HIV prevalence is higher in urban areas than in rural areas; in Kenya, Tanzania and Zambia HIV prevalence among urban populations

² Figure for "Greater Kampala Metropolitan Area" 2004/2005, compared to estimated 1.2 million inhabitants for the city of Kampala (*GoU* 2005).

³ The data displayed in this section draws on the "State of the World's Cities Report 2006/7"-report from UN-Habitat. See Hove (2006), Schlein/Krueger (2006), Spiegel (2006) for reference and further details.

is almost twice that of rural populations. In all countries, women and slum dwellers are disproportionately affected, reflecting a general trend in the region.

2.2. Theoretical foundation

We study the poverty-implications of public transport markets both from an income and from a consumption perspective. Particularly liberals tend to argue that the individual choices of consumption – here the demand for mobility – are none of their business. But that means nothing less than to abandon the full picture of poverty. Somebody might have a fair income to eat and drink and shelter. But if persons are immobile, they might be separated from friends and relatives – and that is economically being prevented from the optimal level of information. They might be lonely and vulnerable because in case of health care needs, the next health care provider is hard to reach. Furthermore, those persons' diets and shelter qualities might well be restrained by the lack of transport options. Thus, in the long run, the consumption of somebody with income capacity but lacking mobility might effect in vulnerability, depreciation, shorter live expectancy.

Thus consider mobility. If you want to go for a shopping stroll in the centre of town, you go there. If you want to visit the zoo with all the kids of your neighbourhood, you go there. If you want to see your friends down in the village or up all the way to Nairobi, you go there. If you want to live in the suburbs or on the shore and work in town, you just go there.

"You go there" makes mobility, the qualification of "just" makes the level of mobility at somebody's disposal. This level varies substantially for different persons. The time, the money, the level of convenience and the level of security are decisive factors which make the difference between nearly unlimited (full) mobility and severely limited mobility (equals immobility). Yet, mobility is an important dimension of well-being, thus immobility is a dimension of poverty. Moreover, limited mobility also feeds into other dimensions of poverty, such as the exploitation of employment opportunities, the availability of health (this may well include the health implications of the means of transport themselves), education and other services, the option to purchase goods from far, and the chance to make and see friends at a distance, which from the minimalist economic point of view is an indicator of access to information.

The capability-perspective of poverty (*Sen 2000*) provides a wider framework which e. g. informs the policy formulation and corresponding research of UNDP (see Human Development Reports, published annually by UNDP). For understanding the poverty-implication of service markets such as the "matatu" market of Kampala, the access-frontier concept provides a micro-level framework (*Porteous 2005*). The access frontier determines the maximum number of consumers (actual plus potential customers) that could effectively access the market, i. e. the product(s) or services in focus. The actual number of customers is likely to be below the maximum number of consumers. The access-frontier-concept analyses the difference to identify adequate policies, i. e. policies inclusive towards the poor. Will the access-frontier move with the stylised development phases of the market (e. g. economies of scale inducing price reduction and costumer expansion)? Or is the access-frontier determined by institutional or environmental conditions, e. g. security, quality of infrastructure,

education/awareness and so forth? The latter qualify corresponding interventions by government or other collective agencies, while the former will be unveiled with the "natural" live cycle of the market. However, after moving the access-frontier to the maximum periphery, there will most likely still be a "supra-market group" of people that are beyond the access-frontier, i. e. cannot be reached by the market. It is upon the public agencies to channel the product(s) or services to this group, e. g. through direct public delivery or through regulatory means (for example forced cross subsidy of the providers).

Last but not least, development policies regularly embark on the meso-level framework (e. g. *Biesecker/Kesting* 2003). This describes the roles of organised interest groups, e. g. associations, in shaping the institutional setting of markets. They disseminate information from the practitioners to the policy-makers and vice versa, they organise opinion-building among stakeholders and eventually lobby for or against specific measures. They often also implement measures beyond information dissemination, e. g. by taking over regulatory functions. These may be self-committed (e. g. Code of Conduct), either with or without particular backing through legal requirements (e. g. legal standards of operation, registration), or mandated (e. g. capacity to de-register).

3. "Matatu" – core element of public transport markets for in-town-mobility

The city of Kampala evolved from a fort founded by the East African Company in 1890. It became the capital of Uganda in 1962 only, replacing its western neighbour Entebbe – still home of Uganda's international airport. The central region roughly stretching from Entebbe up to Jinja in the East of Kampala forms the economic centre and densest populated area of Uganda (approx. one fifth of Ugandans living here). Trade routes from all over the country meet here, flowing with its major agricultural export goods coffee, cotton, tea and sugar. Production sites for processed foods, beverages and machine parts are located here. Kampala is connected by road to Mombasa, Kenya (via Nairobi) on the Indian Ocean, by railroad and road to south-western Uganda and Kigali/Rwanda respectively, and by port to Tanzania (via Lake Victoria). Having been heavily destroyed in the war of 1979, the Ugandan capital has been a lively, growing place since. Kampala is also the administrative, international and cultural⁴ centre of Uganda.

The economy of Uganda has reported robust GDP-growth since the second half of the 1980s, although growth rates have been declining from over 10 % p. a. to something near 5 % p. a. Transport and Communication account for about 7 % of GDP in 2002, up from about 5 % in 1991. Poverty in Uganda has been shrinking remarkably within the 1990ties from over 50 % to 35 % living below the one-dollar-poverty line in 2001. Since then, poverty is reported to be increasing again.

⁴ E. g., Kampala – more precisely, Kampala suburb of Mengo – is the residence of the kings of Buganda who form the major ethnical group of Uganda (17 % of the population).

"Greater Kampala Metropolitan Area": Population and Traffic growth

The "Greater Kampala Metropolitan Area" experienced an average annual growth rate of population of 4.5% from 1991 to 2002. This rate is about 25% (equals 1.2 percentage points) higher than the national average. Given a significantly lower reproduction rate in urban compared to rural areas, this represents a strong trend of rural-to-urban migration, in line with international trends. The "Greater Kampala Metropolitan Area" is expected to grow to 3.6 million inhabitants by 2020 (*GoU* 2005). This represents positive but shrinking average annual growth rates of population.⁵ In close correlation to population, the growth rates of traffic are significantly higher for "Greater Kampala Metropolitan Area" than for all other regions. Overall average annual growth rate of traffic is projected at about 7% up to 2020.

The number of vehicles in Uganda tripled within ten years (1994-2004). Still, the motorisation rate in Uganda is eight persons per four-wheel-vehicle – compared to e. g. less than two persons in Germany. The fastest growing category were motorcycles with a rate of more than 600 %, followed by Pick-Ups/4 WDs with a growth rate of approx. 200 %. Minibuses (*matatus*) grew by a rate of 250 %, their share of total vehicles on the road remained pretty much stable with approx. 14 %. *Matatus*, buses and motorcycles which form the bulk of the public transport supply side (car taxis left aside for the moment) count for nearly half (46 %) of the traffic on Uganda's roads – it is assumed here that Kampala fairly mirrors the national picture. By passenger capacity, the *matatus* are thus by far the most important means of transport (roughly estimating 300.000 seats standby capacity compared to 90.000 for motorcycles and about 50.000 for buses).

Uganda Taxi Operators and Drivers Association (UTODA)

Matatu services framework is overseen by the "Uganda Taxi Operators and Drivers' association (UTODA)". Taxi Operators and Drivers are compulsory members of this association, without UTODA-registration they are legally prohibited from operating.

UTODA has been mandated to organise the network of 125 stages around the capital, plus the central taxi park at the root of downtown hill ("Nakasero"), as well as throughout the country (*Kamuhanda/Tanburn* 2005, p. 47/48). Each taxi is registered at one stage and licensed for one of the defined routes that link all parts of the town with each other, usually via the centre of town, either Kampala road running straight over Nakasero or via the taxi park. In this role, UTODA has a regulatory authority and is an official partner of public agencies such as the town council, the police, the ministry of transports etc. in shaping the framework of the public transport market. Differently put, it is one of the rule setting bodies that intend to steer the profile of the institutional setting of public transport.

"The Uganda Taxi Operators and Drivers Association (UTODA) was begun in 1986, before the war ended, as a forum for taxi [minibus] drivers and owners to express their views and grievances. The taxi drivers consist of about 60.000 members (30.000 in Kampala) with 10.000 taxis. The drivers

⁵ Whereas most countries of the world are on the turn to shrinking population growth rates, Uganda is one of the few countries with high population growth (see *Economist* 2005).

themselves elect their management committee. [...] Given that taxis are the principal means of public transport for Kampala, they have considerable leverage on local politics. They have used this to establish themselves as the principal managing and policing authority of taxis nationwide. They operate a contract with Kampala City Council to run the taxi parks. Their traffic warden department is 100 strong and, working with the Police, has responsibility for enforcing traffic regulations by taxi drivers and in directing traffic in rush-hour congestion."⁶

4. Studying the Matatu market of Kampala

The data, insights and conclusions presented in this paper draw on a survey undertaken in the first half of June 2005 by the author and the Dutch development agency SNV. Different stakeholders of the matatu market of Kampala were interviewed. Altogether 377 questionnaires were filled by 5 target groups (stakeholders of the matatu market): 161 from passengers, 75 from drivers, 64 from conductors and 56 from taxi owners. A small sample of 21 respondents covers the stage personnel. The latter are hereafter referred to as UTODA, as they are officially appointed by this apex organisation.

The questionnaires aimed to discover attitudes of the different stakeholders towards matatu services in general and towards other stakeholders in particular. It inquired motivation and alternatives to work on a matatu and to use it respectively; and attempted to unveil the effect of matatu services on the economic situation and perspectives of stakeholders.

The percentages presented in this paper refer to the corresponding numbers of respondents or, depending on the kind of questions, to the corresponding number of responses given to one answer. For a precise statistical analysis, significance levels and variance corridors should be given. This demands a randomly defined sample. However, randomness in its strict statistical meaning was not met, rather the researchers spend some time at selected locations (stages), interviewed people as they met them but with a deliberate balance (e. g. they ensured to interview both long-distance drivers and in-town-drivers).

However, although without that, it can be said the results for the passengers, drivers and conductors are straightforward, given the size of the respective sample. Caution is demanded in interpreting the results for owners and stage personnel, as these samples are relatively small. But then, these groups are closely related, often overlapping in the persons, e. g. drivers being owners or stage personnel, such that the interpretation of these figures should not be very problematic. As a first empirical approach to understand the broad picture and to have a first data foundation for policy discussion and more importantly for identification of further research areas, the data generated is considered appropriate.

The survey was carried out between the 16th and 24th June 2005. The bulk of questions being of multiple-choice kind, only few questions asked respondents to give their views in their own words. Most of those have been categorised, e. g. questions for the occupation or educational background.

⁶ See *Baker* (2004).

The lack of theoretical rigour, or rather the mixture of different hypothesis and perspectives within the questionnaire led to some shortcomings which are unveiled in the process of analysis. E. g., drivers/conductors have been asked for their educational background but the other groups have not. This leads to gaps in the comparative analysis of these groups. This becomes evident when looking at drivers who are also owners. Most of them (except two) have been interviewed with the owner-questionnaire. Indeed, only by analysing this sample the relevance of the "owner-driver" group was recognised. Unfortunately, we are now lacking the educational background of this group and thus we do not exactly know if there is a correlation between the level of formal education and the chance of a driver to become an owner.

Another weakness derives from the language context. While the questionnaire was in English, the questioning had to be done mostly in Luganda. Yet, although Luganda is the first language of the Baganda who originally populate the Central Region, many migrants from the countryside again use different languages, the biggest difference towards Nilotic speakers.⁷ Budget constraints did not allow for addressing these challenges more thoroughly, e. g. by training the researchers. Other socio-cultural effects may also bias the results. E. g. the research team was fully comprised by males. Yet, we find that the sub-sample of female passengers offers interesting variances. To rely on their robustness, a gender-balanced research-team would have been appropriate.

As every research activity and every methodology, such weaknesses offer an opportunity for those who do not like the results to abandon them. That is in the nature of science, as we are dealing with limited knowledge and understanding of the world around us. This holds true particularly for fast changing environments like those social settings that are studied here. It is sound practice to note and to recognise these limitations, and to understand data collection and research as a permanent activity to wipe out false hypothesis. The scientist cannot and dare not step into the responsibility of the policy maker who at the end of the day will always have to decide under uncertainty. This burden and the arising challenges have to be respected. However, the policy maker if serious has no right to ignore research results except for one single reason: Reference to better, newer research results. Any other abandonment of scientific reference, particularly the reason of its limitation, has to be rejected as unserious and, following Clifford's ethics of belief⁸, as a moral fraud.

5. Matatu and the income of the urban poor

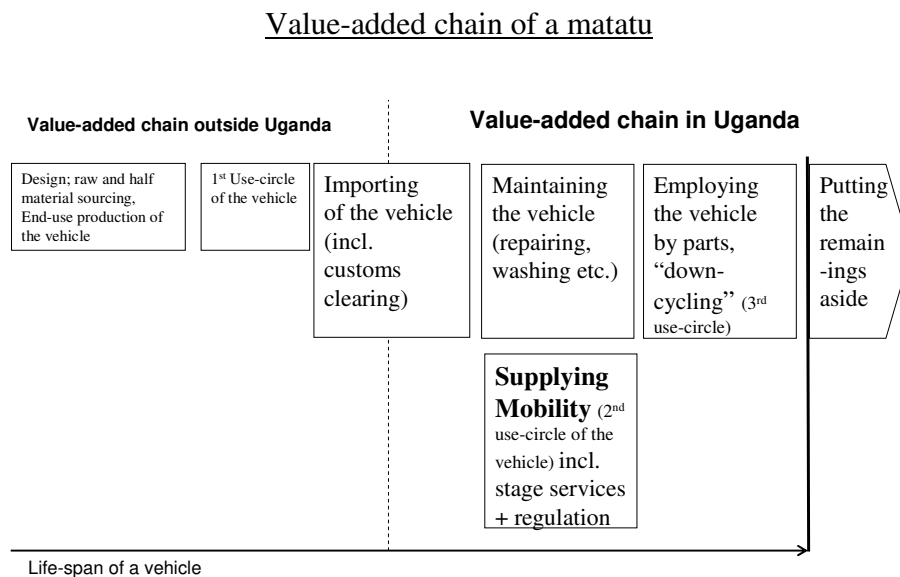
The Matatu market impacts on income in two ways: On the one hand, there are job opportunities created directly through the mere fact that a Matatu is run. On the other hand, there are job opportunities created indirectly because the Matatu service renders choices feasible which would not otherwise be there.

⁷ Nilotic languages are mainly spoken in Northern Uganda, e. g. Luo and Acholi. Baganda and most languages of the South and West belong to the Bantu language family.

⁸ William K. Clifford, "The Ethics of Belief", 1876, London (quoted after de Marco/Lister, 2003).

The job opportunities created directly derive from the value-chain (see figure 1). It does not look at the production of the cars because these are 100 % imported, usually as used cars. However, it should be noted that this part demands an analysis of its own in a fully conclusive poverty impact study. The Matatu-service-market might be found to alleviate poverty; but if in the same time import of cars – and all the parts – strikes on the macro-economic stability of a country,⁹ the net effect might be seriously reduced or even negative. This should point to an intervention point for policies of industrialization. This paper has got a different focus. We will reconsider the point briefly in regard of the skill effects, though.

Figure 1: The value-added chain of Matatu services



The job opportunities created directly are those of the car dealers and brokers (including the corresponding financial services), those of the drivers and conductors and those of all the people who maintain the car (to provide parking space over night, to wash it, to repair it, and the like). This includes all public servants who deal with Matatu licences, taxes etc. and the UTODA personnel (approx. 650 persons). Furthermore, there are those job opportunities which focus on the passenger in a narrow sense, e. g. carrying luggage. One example are the "stage brokers" that are those guys who call out the destination of the vehicle. The value-added of this "job" might be doubted,¹⁰ it is a typical example of informal sector activity with

⁹ In the national payment accounts, import of goods equals import of capital equals credit from abroad. If it is not balanced by exports, the country faces a negative trade balance which eventually results in devaluation of its currency or high level of interest rates.

¹⁰ One might feel tempted to refuse the label "passenger service" here. Indeed, the shouters are taking over a task from the conductor. Yet, the objective – however doubtful the impact might be – is to serve the passenger by reducing the time of searching for the car of his/her destination.

an extremely low productivity. Its ultimate driver is rampant underemployment of the workforce available, i. e. lack of jobs.

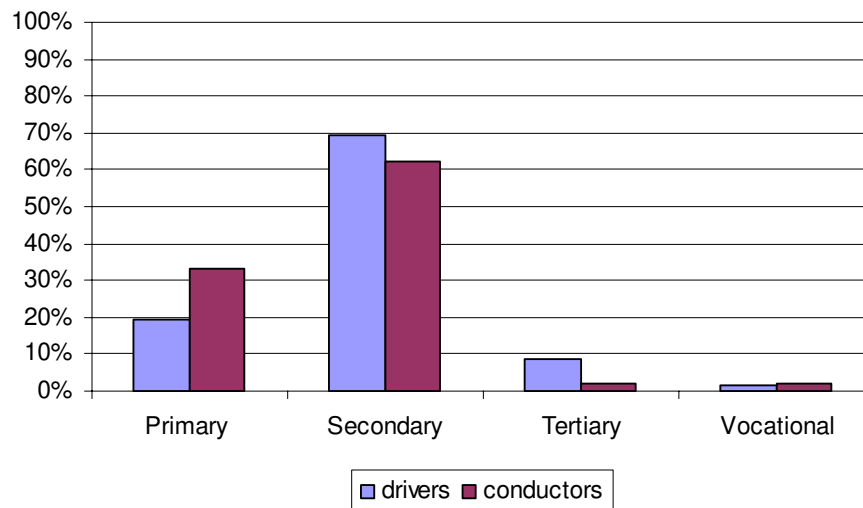
The following discussion focuses on the drivers, conductors and stage maintenance personnel (deployed by UTODA), and turns then to the passengers for exploration of indirectly created income opportunities.

5.1. Directly created income opportunities

Matatu drivers

The average matatu driver is a man¹¹ between 34 and 35 years old. His educational background is usually secondary school, with one out of five having got primary education only. Vocational training is practically not existent in this group (see figure 2). Consequently, a driver rises to his profession not by formal qualification but by personal relationship. Approximately three out of five got their position as a driver through family or friends. However, they usually have had an affinity to that kind of business before. More than three out of five come out of "car-related businesses" such as driving for other employers (often NGOs), mechanics and – about half of this group – conductors. 14 % of the drivers interviewed have been unemployed before, 3 % have been employed in farming. Differently put, approx. one out of five drivers is absorbed from the abundant workforce which forms the core of Uganda's poor. This stage of career seems to be a relatively "safe haven": The average time having worked as a matatu driver is around 6 years, and the average time intending to go on working as a matatu driver is nearly the same. However, 8 % of the drivers interviewed say that they would like to change their job as soon as possible, only one considers it as a life-long-assignment.

Figure 2: Educational background of Matatu drivers and conductors



¹¹ Among the respondents, all drivers and conductors were male. However, anecdotal evidence indicates that there are a handful pioneer female matatu drivers in Kampala. The penetration of driving business by women is a bit more advanced for individual taxis ("special hire"), where they appear to have gathered a good reputation.

The term "relatively safe haven" refers to the options available. Matatu drivers are vulnerable, because their employer might at any moment decide to lay off the car and/ or its driver. However, at least there is a small social security fund organised by the corresponding stage personnel and stage registered drivers respectively. More important, the network of drivers, conductors and other car-related workforce – from which the driver usually came in the first place – might offer a certain security to gain an income from one of these activities again. Insofar, the matatu drivers are less vulnerable than those employed without relying on such financial and social networks. On the other hand, the options are quite limited towards other activities. Consequently, only a third of the drivers indicate skill-based future-plans. Most of them are hoping to become matatu owners themselves,¹² the second biggest group would like to do farming which they are probably skilled for to a certain extent from their family-contexts. A few intend to go (back) to driving for NGOs or to being a mechanic. The big majority has no particular idea how to forge the future. 14 % reveal that right away. 51 % indicate that they would like to do "business". That is a fancy, but not very conclusive term. Business could be anything – or nothing. Most probably it refers to some kind of goods trading activity. Given their professional backgrounds, it is more than doubtful if the majority of taxi drivers have a particular understanding of the demands of a trade or a shop.

Matatu conductors

The average Matatu conductor is a man of about 27 years. Just as for the drivers, his usual educational background is secondary education, but there are more conductors than drivers with primary education only (33 % of the conductors interviewed as compared to 20 % of the drivers interviewed, see figure 2). Just as for the drivers, the conductor got his job by personal relations. The figure is slightly higher (70 % compared to 59 %). Both figures might well be displayed as even higher when those who got the job by a driver or a car owner respectively are added. While conductors indicated regularly "befriended" drivers, the drivers did usually not disclose if the relationship with the owner has a private dimension. It might be guessed that the professionally or skill-based relation in case of the drivers is a bit more common than in case of the conductor (because of the driving licence). More remarkable is the significantly higher part of the family in getting a conductor's job than a driver's job (32 % compared to 22 %). Namely, quite a few conductors got their job through their fathers' intervention. This, in combination with the younger age¹³ points to a calculated entry strategy of the families for their (male) offspring. This line of reasoning is strengthened by looking at where the average conductor comes from. Nearly half of them had no job when they started as a conductor or where at least partly unemployed – as 13 % indicated to have been "casual workers". It might be concluded from this figure that the absorption of urban poor by this segment of the matatu service market is highly significant. However, only 3 % of the conductors have been working in farming before. Rural poor heading for the town seem not to enter easily into the matatu

¹² A goal that approximately 40 % of drivers realise eventually (according to UTODA-data, see *KamuhandaTanburn* 2005, p. 49).

¹³ The age of the conductors interviewed ranges from 19 to 40 years, compared to 26 to 49 years for the drivers interviewed.

service market. To answer this question conclusively should be noted as a task for further research.

The work experience in the current job is a little above 3 years, and those conductors who were willing to indicate so intend on average to work about 4 years more in that position. For both drivers and conductors about two out of five cannot answer that question. The question for their future plans reveals some interesting differences between conductors and drivers. The figure for skilled-based future plans is considerably higher for the conductors: 57 % are looking for a future profession within their skill range (compared to 35 % of the drivers). Most of them (31 %) wish to become drivers (31 %) or driving car-owners (16 %). 5 % and 3 % would like to go back to car-related occupations and farming respectively, 2 % (one respondent) would like to drive for a NGO. Note that no conductor and no driver wishes to work for UTODA. Yet, practically all stage personnel interviewed have been conductors or drivers before. On the other hand, the figure of conductors with no or relatively blurred ("business") future plans is 41 % only and considerably lower than the same figure for the drivers (64 %). This strengthens the view that the position of a matatu conductor is a promising one, understood to be the entry point to a career which is hopeful to go at least to the driver's seat, and even towards ownership of a matatu. The average conductor appears to be a man of youth, optimism and ambition, whereas the average driver appears to be less young, more settled but more disillusioned also, with few valid options of where to go.

For an average of 12 hours / 7 routes per day, this driver brings home around 20.000 Ugandan Shillings of which about 8.000 have been earned somewhat half legally, that is using routes for which the taxi is not registered. The conductor earns from the same workload around 10.000 Ugandan Shillings of which around 3.000 have been earned on unregistered routes. Thus, both of them are above the international poverty lines of one and two dollars a day, even if only their fully legal income is counted for. Additionally, they have choices and securities which derive from the skills their occupation offers and from the social network they rely on. The same social network offers to some extent income and inclusion to the huge group of informal workers around the matatu services, such as stage brokers. Indeed, those are often unemployed - or future - conductors and drivers. It is this interface to the informal sector that determines the absorption rate of the direct matatu service job opportunities for the urban poor.

stage maintenance staff

As government is lacking capacities to enforce adequate maintenance of Ugandans roads as well as adequate standards of using these roads, let alone the handling of matatu services at the stages and in the vehicle, it has turned over the latter responsibility¹⁴ to UTODA. However, the outcome of this strategy of mandating regulatory power is not convincing. UTODA has not managed to be recognised by passengers as a reliable and trustworthy partner. Just the same, drivers and owners tend to score low grades when asked for UTODA's trustworthiness. Drivers trust them less than they trust anybody else, and driver-owners,

¹⁴ As well as some of the former, see the quotation of Baker in section 2.

although less liaising with their conductors than drivers-only, put them on one level. Even owners-only appoint less trust to UTODA than to the conductors. These figures are remarkable because, after all, the owners and drivers *are* UTODA – it is them who form the members of that organisation and thus should feel they own its policies. But they seem to feel that they do not. Or, this lack of trust reflects some insider-knowledge.

Interestingly, nobody wants to be UTODA-personnel. Yet, 3 out of 4 of those are former drivers/conductors or from a car-related job, and unemployed drivers and conductors are often "helping" (no qualification of that here) to perform the stage personnel's tasks. So we find that UTODA is no longer seen as a member-organisation but as some kind of hassle – just as hassling to drivers and owners as conductors are to passengers. Also interestingly, the complaints reported by UTODA-personnel are the same as those found with the passengers. Additionally, they are bitterly complaining that they are abused and disrespected (sic!) by the drivers and conductors.

This disrespect might root in the perception that UTODA-personnel are drivers who have not quite made it – they are on average older than the drivers but younger than the owners. Somehow, they represent a failed role model, or even a traitor, given the fact that they are liaising with "the hassler" UTODA. That some of them are in fact successful taxi owners – what every conductor/driver wants to be – seems to be unknown.

This interpretation may or may not hold true, but more probable is that it is the simple fight about money that poisons this relationship, as so many others. The UTODA personnel collect about 110.000 Ug. Shs. per day (on average 12 hours of work) from the drivers/conductors. Per average vehicle, this comes to approx. Ug.Sh. 9.500.¹⁵ That is roughly 6 % of the turnover per matatu per day. Not exactly a share to get upset about – even if the monthly membership fee of Ug. Shs. 20,000 per minibus operator is added. Yet, obviously the drivers do not see the point of giving "their" money to UTODA. It seems not to be transparent how that money is used. Repairing potholes at parks, cleaning stages sounds reasonable, but is not very visible (we do not know how those places would look like otherwise, but it is hard to imagine them much worse). To blame the taxes for KCC on UTODA might be not justified as they are only an agent. It comes down to the point that whatever UTODA does with the money is not much appreciated by the drivers (nor by anybody else) despite the fact that some of that money serves needs of the drivers (welfare in case of unemployment, sickness as well as salary-loans). The question this data-set cannot answer is: Do drivers not understand that welfare-system or do they not appreciate it and what are the reasons for that attitude.

5.2 Indirectly created income opportunities

The effect of indirectly created income opportunities shall be determined by looking at the reasons and purposes why people use the matatu and by looking at the relation between matatu services' prices and passengers' incomes.

¹⁵ According to the stage-personell-questionnaire, the amount per vehicle is Ug. Shs. 8.500, according to the drivers-questionnaire it is Ug.Sh. 9.500. Calculated by the formula "average stage fare per route" multiplied by "average No. of routes a matatu makes per day".

Figure 3: Ranking of reasons and purposes to use the matatu

Reason	Rank by No. of respondents mentioning it.	Rank by average mark	Purpose	Rank by No. respondents mentioning it.	Rank by average mark
Price	1	1	Going to the workplace	1	1
Availability	2	2	Doing business	4	2
Space	3	3	Going to school/university	5	3
Speed	4	5	Seeing relatives and friends	2	4

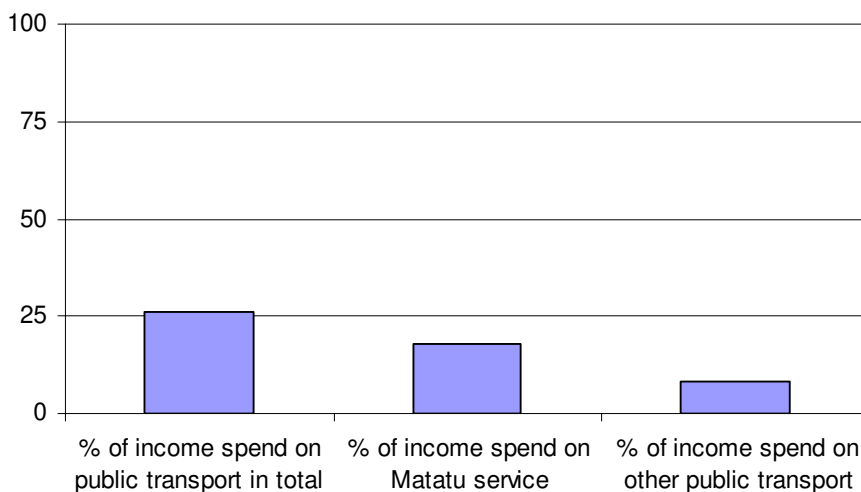
The Top4-reasons to use a matatu are given in figure 3. The price is the frontrunner together with availability of the services, followed by space available. These are income-relevant properties, as reveals the Top4-ranking of purposes to use the matatu. Reaching the workplace and doing business (which needs space as far as goods are transported) are the frontrunners followed by fulfilling educational goals. However, there is a difference in the ranking by No. of respondents mentioning the property and by the average mark scored (best score: 1, worst score: 3). A lot of people use the matatu for seeing relatives and friends, but they grant it lower importance than the fewer people doing business and education grant to those activities.

Consequently, 77 % of the passengers interviewed think that any change in matatu services would reflect directly or partly in their own income. On average passengers spend about 1 out of four shillings on public transport. However, there are significant differences for sub-sample groups by age and gender perspective, which will be discussed in the following section. The lion's share of this "mobility budget" goes to the matatu, though. More than 2 out of 3 Shillings spend on public transport are for matatu services (see figure 4). This emphasises the dominance of the matatu as a means of public transport in Kampala. Particularly the roughly one third of the passengers interviewed who indicate self-employment are probably vulnerable to changes of matatu services both in prices as in availability and/or speed. E. g. the increasing traffic jam in the town centre of Kampala might be such a change which has been answered to by the invention of motorcycle transport (Boda-Boda). Those are more expensive but also faster than the matatus as they are nearly independent of traffic jam. That points to the importance of both price *and* other properties of the public transport.

The question for suggested improvements might be another indicator for the impact of the matatu services on the income of the passengers. The choice of answers referred to security,

convenience, price, and other factors which might be labelled "structural".¹⁶ The strongest interest is about the attitude of the conductors in handling the fare. The majority of respondents over all samples wish a strict control for conductors for two reasons: Avoiding fare betrayal (24 %) and/or ensuring that appropriate change is available (18 %). Both are closely related as far as not having change is a way of betraying with the fare. But it is also a source of delay. These are followed by the demand for more carefully driving (14 %) and avoidance of overloading (13 %). Two of these answers had been categorised with convenience (Overcrowding and Change money), what is their direct impact, but they are related to security and price respectively. Therefore, we might say that "price stability" (in the sense that the official price should equal the price actually paid) with over 40 % and security with over 25 % are the most important demands of the current costumers of matatu-services, and that they feel to suffer a direct income constraint (by being cheated with the matatu fares) and an indirect income constraint (by being confronted with reduced security). Only 7 % of the passenger sample call openly for price reductions, but this minority ranks it over-proportionally high.

Figure 4: Income spend on public transport as distributed by transport means



There are no striking differences between the sub-samples regarding the question for suggested improvement. All of them regard relatively simple day-to-day-experiences which are felt to be hassling. That is supported by the question for problems caused by drivers/conductors. Again, over 40 % of the respondents complain about lack of change money (27 %) and overcharging (19 %). Also nearly 40 % complain delay. The delay is

¹⁶ Proposed answers for "Security": "Drive more carefully/slower", "control strictly for misuse of alcohol", "improve stage security". "Proposed answers for "Convenience": "Avoid overcrowding", "Conductors should ensure to have change money", "increase No. of stages/routes". Proposed answers for "Price": "Control strictly for conductors betraying with the fare", "Reduce prices". Proposed answers for "others/structural": "Employ female drivers/conductors", "Establish a regular time schedule", "Vehicles should be smaller (7 places)", "Vehicles should be bigger (30 places)", "No need for improvement".

caused either by refusal to stop at the requested location (23 %) or/and because of long waiting periods/ stopping often in search for more passengers (16 %). The latter might be categorised as convenience factor, if the bonmot "time is not money in Africa" should hold true. However, more than anything else it is about (lack of) respect. This category might well describe most of the suggested improvements as well. Indeed, there seems to be a serious shortfall in respect for consumers in Uganda (and elsewhere). Lack of respect might also be a serious indication for impoverishment. It signals or results in lack of voice, and lack of voice will eventually lead to lack of access to the various resources that nurture everyone's capabilities.

There is a slight indication that hassling of various kinds is more relevant to women than to men – the former express more often the demand for avoidance of betrayal with the fare and for improved stage security. This seems to be in accordance to anecdotal evidence and conventional wisdom. Yet, the data-set does not allow for strong gender-related conclusions, more research would be necessary on that perspective.

6. Matatu and the mobility of the urban poor

Public transport is the first and mostly only option available to the average matatu passenger. 91 % of respondents do not own any means of transport – that figure holds more or less for most of the sub-samples¹⁷. Most of those who own a means of transport have a motorcycle, some few have a car. Only one bicycle has been mentioned, also we might tend to guess that some more are available (e. g. with relatives or neighbours) that respondents have just not thought of here. Slightly above half of the respondents intends to buy a means of transport as soon as their financial means allow to do so (this figure is highest in the gender-perspective sub-sample for males – 58 %). This indicates that transport is a high-cost activity that is beyond the capabilities of most Ugandans. Thus, they are highly affected by whatever development the public transport sector takes, although the direct income impact is not extraordinary high, given around 26 % of income spent on it. This is about the share spent on transport by average European consumers.

Turning to the age and to the gender perspective, we find that the income impact is significantly differing from the overall-sample figure of 26 % of "mobility budget" (the share of income spent for public transport). Women and young people spend a significantly higher part of their income on public transport than others, 29 and 30 % respectively. If we look at the group of unemployed (students and housewives), the figure even rises to 51 %. Note that all these percentages for the different sub-samples refer to roughly the same amount of time spend on the matatu, around 2 hours per day. That supports the conclusion that the higher percentage is indeed due to higher parts of the income dedicated to mobility, rather than a different way of spending available time.

¹⁷ For the passengers, the following sub-samples were studied: male-female, employed-self employed-not employed and under 30-over 30 years old.

One reason is the distribution of the "mobility budget" onto the different choices of public transport. Compared to the male sub-sample, most others¹⁸ spend relatively higher parts of their "mobility budget" on more expensive choices such as boda-boda or other taxis than on the matatu. This indicates different needs and structure of mobility which are partly reflected in reasons and purposes of the use of public transport. Women and young use it more often to go shopping or to see friends and relatives, while men and over thirties use it for business reasons. However, the real-life difference behind these expressions might be rather small. As said before, "doing business" is a rather popular expression – and a particularly male one – but not very conclusive when thought about. So it is possible – but of course indecisive from the data available – that women and younger people are just more honest in describing their activities.

UTODA sought to be recognised as a rule- or standard-setter in the matatu service market. Thus, the nature of that recognition by passengers should be an indicator in how far mobility demand is met accurately. Judging by attitude of passengers towards the legal framework of consumer protection, there is room for improvement of this accuracy. Although a majority (59 %) is aware of the existence of such a legal framework, nearly 3 out of 4 respondents have never benefited and/or do not expect to benefit from that framework. Interestingly, the pessimism on legal enforcement is stronger with men than with women (75 % to 67 %), although more men than women are aware of the legal options (61 % to 55 %). While the awareness is lower with younger respondents, the pessimism grows with age – that tells something about the experience with law enforcement over the years.

In line with that finding – also there is not necessarily a causal link, because the understanding of passengers about the role of UTODA is probably limited – the UTODA-personnel at the stages is poorly perceived by the passengers. 49 % of respondents consider them to be partners or friends. But 50 % consider them to be somewhat hassling and not trustworthy. This is far from impressive, given they are representatives of an organisation mandated with public order tasks. At least, UTODA-personnel is perceived clearly more positive than conductors. More than 2 out of 3 passengers see them as a hassle and not trustworthy. Only 29 % consider them to be partners or friends. The drivers score surprisingly strong – 61 % consider them as partners or friends, "only" 38 % see them as a hassle and not trustworthy. Ask for their trustworthiness, drivers score 3.7 on a scale ranking from 1 to 6 (1 = not at all, 6 = fully true), followed by UTODA with 3.3, while conductors receive a poorly 2.4. On the other hand, conductors score 2.5 for their dangerousness, while drivers score 2.2 and UTODA only 1.7. The best scores and characterisations, however, are granted to the taxi owners which are ranked top in all categories of these questions.

7. Conclusion

From an urban poverty alleviation point of view, the Matatu market is doing extremely well. The workforce it demands is to a great extent absorbed from the abundant young Ugandans who are out on Kampala's streets to find means for a decent living. Entering a career within

¹⁸ I. e. sub-samples of over thirties, employees, women, young, not employed.

the Matatu business opens choices and promises inclusion into a relatively strong social network. Furthermore, the Matatu service is unchallenged in price and availability and thus offers a great range of choices for all kinds of people – from the teacher who is living on one side of the town and working on the other, connecting the two by Matatu, to the self-employed trader who transports goods from where they are bought cheap to where they are sold easily, sometimes even using the fellow passengers as partners in business.

The long-term impact of the public transport market onto labour markets and thus income-related welfare is twofold. First, there is the skill effect within the market's workforce. The bulk of conductors and drivers received at best minimum education. Vocational training is literally non-existent in Uganda. Learning-on-the-job is thus and by far the most important source of upgrading the skills within the workforce. Quite obviously, to work on or around the matatu offers excellent opportunities for such upgrading. On the one hand, the hurdles to learn driving are low and the close relationship between driver and conductor is all it needs to spread that competence. Anecdote tells that the formal hurdles are of minor impact and driven by monetary incentive rather than by any driving standard. Consequently, the matatu-dominated roads of Kampala show little coherence to legally described driving rules whatsoever. Yet, this should not be blamed on the matatu-drivers but on the lack of capacity and will of the government of Uganda to enforce such standards.¹⁹ If anything, we might assume that the matatu-drivers are better drivers than anybody else because their live is bound closer to those skills (and there is some kind of natural selection) than anybody else's are. On the other hand, the borderline between all kinds of car-related job-opportunities is thin around the matatu. Thus, drivers and conductors are likely to adapt to a good deal of car repairing and maintaining competences. These, in turn, might create further job-opportunities (repair cars or motorcycles or generators in your neighbourhood, become an associate owner of a garage, sell spare parts).

Furthermore, they have also a good chance to rise up to the ownership of a taxi, which indicates that their jobs also build a certain management competence, at least an idiosyncratic competence that is needed to manage a matatu successfully. There is no indication that matatu owners who are drivers at the same time are better educated than employed drivers.²⁰ Moreover, there no difference was found between the owner-drivers and those owners who employ drivers.²¹ Neither do the latter own on average more vehicles than the owner-drivers,

¹⁹ The recent activities on safety-belts are an example of that lack of serious effort. A law was passed that stipulates heavy fines for driving without wearing a safety-belt. However, no attempts are made to make people understand the importance of safety-belts. Further, no attempts were made to ensure that matatus do have safety-belts. The consequence is no obvious change at all except that police-officers have one more instrument to ask for money (as they do for over-speeding, over-loading, driving drunk and so forth).

²⁰ Unfortunately, the questionnaire for taxi-owners does not ask for the educational background. The indication is drawn from the question for the reason to become a taxi-owner. Here, owner-drivers answer regularly that it is their profession/experience/means of living.

²¹ Note that the owner-driver sample is very small (14 respondents) and thus less conclusive. The reason is that this group was not thought of when compiling the questionnaire, it was rather "discovered" through it.

nor is the income different. Apart from the salary of the employed driver, of course, which reduces the income of the latter compared to the owner-drivers. Also, if the owner sample is disentangled by those with a car-related background (such as car dealers or UTODA-staff, etc.) and those with any other background (most are traders and administrative employees), no significant income difference is found. If formal education of the latter does help them manage their matatu business, the outcome is non-monetary. The main difference is the time of experience in that market. Owner-drivers have approx. 2 years more experience in the matatu-market than pure owners (on average 7 compared to 5.2 years).

Last but not least, there is a fair chance of drivers to perform regulatory functions by joining UTODA-staff. Although this option is unpopular among active drivers and conductors, it definitively is an element of the "safety net" that the community of drivers and conductors provides. Indeed, UTODA is supposed to be the formal appearance of that safety-net. However, the data indicate that the association has not the image of a "back-stopper" but rather that of an "opponent" who is met with severe mistrust. It seems reasonable to ask why that is so. Further research and policy discussion should unveil a better understanding of that question (see e. g. *Kamuhanda/Tanburn* 2005, p. 47-49). Note that the findings support the impression that the failure of the "res publica" as a major impediment to low-income-countries is not automatically eased by forming meso-level organisations.

The second skill effect is indirect and rather hard to measure. The mobility offered by public transport gives people the opportunity to practice and enhance all sorts of service-oriented and social skills, and the core objective of all of these is to find a source of income. Indeed, the overall majority of Ugandans is employed or employs themselves in some kind of service-oriented activity. That is, assumingly, the core meaning of "doing business". To measure this effect, we would have to run a comparative study to some community where people are quite isolated and every non-walking-distance is highly-costly to cross. Intuitively, this leads us to think of a heavily agrarian community. It is common knowledge that poverty today is overwhelmingly rural. And interestingly, there is a sharp distinction between the "matatu-man" and the rural man. The former are a strictly urban lot. Of course, this observation is not final, as the case study of this paper is focussing on an urban, even metropolitan environment. However, just as all countries Uganda faces a steady, huge stream of people heading from the countryside into the cities. At least in Kampala, those former peasants or villagers are quite unlikely to make it in the public transport sector as a driver or conductor.

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