

## Use of Hand Held for CPI Price Data Collection in Egypt

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### Abstract

Handheld electronics is a common name for light mobile devices. Handheld electronics include personal digital assistants (PDAs), Handheld devices have become spread for use in mobile field management.

This paper discusses statistical and practical issues in relation to the use of hand-held computers, or Personal Digital Assistants (PDAs), for the collection of price data for the compilation of Consumer Price Indices (CPI).

The paper aims to assess the main advantages and challenges associated with introducing a system of electronic data collection in the context of two practical pilot studies carried out by CAPMAS Office for National Statistics in Egypt. The main focus of these studies was whether or not it is currently appropriate to further consider the use of handheld technology for CPI data collection in circumstances pertinent to Egypt. Although the assessment presented here is in the context of the countries involved, it is also hoped that the study will inform other countries considering the adoption of such technology for CPI data collection.

Keywords: Consumer Price Indices, Price Collection, Statistical Capacity Building, PDA, Hand-held Computers.

### 1. Introduction

Handheld electronics is a common name for light mobile devices. Handheld electronics include personal digital assistants (PDAs), such as Palm Pilots or cellular telephones with connectivity to a network such as the internet. Due to limited size of this machine, developers of this system and applications face many challenges. For example, a PDA is typically about 5 inches (130 mm) in height and 3 inches (76 mm) in width and it weight less than 0.5 pounds (230 g).

Handheld devices have become spread for use in mobile field management. Uses include digitizing notes, sending and receiving invoices, asset management, recording signatures, managing parts, and scanning barcodes.

### 2. The importance of research

This study had the competence to consider not only how laptops provide additional scope for improving the product through data to improve quality and timeliness of interactive editing-LIVE and electronic data transfer, but also for its ability to assist with others, any developments such as discounts, controlling coercive replacement elements and provide information on changes in quality.

### The Use of Hand-Held Computers for the Collection CPI Price Data:

Studies- due to their expressed interest in introducing CADC in the near future and also that the countries differ significantly enough to provide an interesting comparison .Both the Nigerian National Bureau of Statistics (NBS) and the Ugandan Bureau of Statistics (UBOS) welcomed the pilot study and provided the significant support necessary during the missions.

### 3. The research objective

A- Consumer price index data

B- Increase and quality control at the point of entering data help to identify anomalies and ensure that prices charged are correct.

#### The Use of Hand-Held Computers for the Collection CPI Price Data

##### 1- Timeliness

The use of PDAs to collect prices data significantly reduces the time taken to make data available electronically at the central office and between data: collection and finalization, this can be achieved through:

A-Transcription: Data collected on paper must be transcribed onto computer for computation. This process is time-consuming and resource intensive.

##### 2- Quality

Quality checks in advance: As the functionality is available to run certain quality checks in the field that would normally be run in the office after data had been transcribed the time taken for quality checking centrally can be reduced, or alternatively further check could be carried out. These improvements to the speed of the processing system might facilitate more time on analysis and interpretation, the production of press notices. and associated briefing or the collection of more prices

##### 3- Transmission

Although the pilot studies could carry out no physical testing of the transmission of collected data to the central office we were able to make a practical assessment of the possibilities:

a. Wireless transmission: Collectors will not always have access to a PC but in both Uganda and Nigeria the mobile telephone network is good. and widely used. Data could therefore be transmitted directly from the PDA to the regional or central office

##### 4- Email

Although this was not tested in the field, in both Uganda and Nigeria the data could be downloaded on to a local desktop PC and then sent to the central office via email. In Uganda two of the five regional centres have desktop PCs already. For the other three one option, other than actually purchasing PCs, would be to arrange to use PCs in other government offices.

In Nigeria the zonal offices will soon have network connections directly to the central office and access to the internet, so local downloading and transmission should not be a problem in principle

##### 5- Work Control

Check that all prices have been collected: An electronic data collection form can easily check whether all prices have been collected and flag when they have not, this mitigates the risk of the price collector. Inadvertently forgetting to price a particular item.

### 4. Research methodology

- To develop statistical area in general and be harnessed information in particular in the statistical area.

-Researchers know all the world of the presence of statistical program very important

- Explanation of the most important steps a program Prices which has been applied in some countries in Africa were marked by already in Egypt.

The paper aims to assess the main advantages and challenges associated with introducing a system of electronic data collection in the context of two practical pilot studies carried out by CAPMAS Office for National Statistics in Egypt

- Although the assessment presented here is in the context of the countries involved, it is also hoped that the study will inform other countries considering the adoption of such technology for CPI data collection.

### **5. The most important indicators for the collection of price data**

The most important challenges as evidenced by experimental studies in Nigeria and Uganda that the introduction of portable computers for price collection in countries facing similar local circumstance and feasible and has the ability to bring a number of advantages including the delivery to the seat price data that is both more timely and which saw already interactions, data editing in real time. For the potential benefits in terms of quality of data depends over ' quality ' is noted to be the cause. Uganda, for example, list data validation procedures that are relatively

- effective and comprehensive quality of data for their own amendment. In the other, I am trying, where existing infrastructure in Central Office (where technology and experience alike) would not be as strong as it was, the greater the potential gains.

- initial indications of empirical studies indicate that the use of mobile phones and computers to facilitate enhanced surveillance procedures to ensure more and follow best practices for data collection principles of the CPI. Portable COM-puters also has the ability to accelerate subsequent authentication

There are also the challenges associated with the implementation of such a system, regardless of those to do with the development of the system itself, may have some practical challenges: risks of repeated power outages affecting ability to recharge batteries, making sure the price collection, Tor does not become a target for theft, the long-term sustainability of the system (including expertise at the local level for maintenance), and of course set up costs (although some of these can be offset from Before efficiency gains in the long-term)

### **6. Application experience of consumer price data collection using laptops in Egypt**

It was an implementation of consumer price data collection experience through mobile in Egypt through the Central Agency for public mobilization and statistics include idea

1. compilation of sources of goods to Excel as an easy shit for researcher
2. transfer all data sources on databases
3. developing types of goods on hand held
4. stages of search definition, a researcher at all offices education program prices and how to find sources of goods on the market
- 5.the researcher to collect price data from different sources into the market for the price of shipping is a researcher with the Kart compile Alban at from all sources deplorably shipping cards vendor or freight stations or through a form on your computer and when permission to other stage researcher folk
- 6.based researcher with the stage name sources, address and commodity prices
7. researcher Bachtiar merchandise from the program and know what good example supermarket appliances and know the price of merchandise from the largest sources of diversity price through the screens on your computer and database on India held compile all data from all provinces, rules on the network link.
8. searcher enters a password program of its own working group has developed the idea that a searcher enters password Finder is the same researcher level code to remember him and results represent the success of the project has experience in data

### **Entry through shipping computers killing**

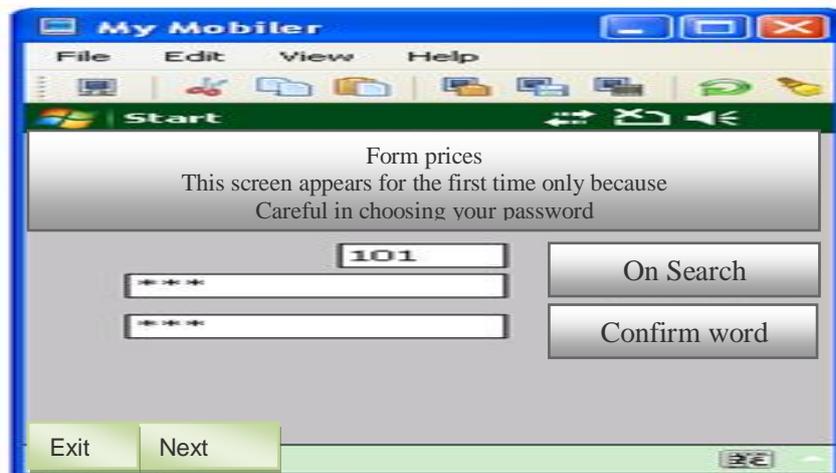
1. Provide forms and provide transfer these forms which saves effort and employment
2. Entering data in a decentralized manner possible
- 3-registration and compilation of decentralization through the network linking the governorates and compilation of all main machine headquarters offices

**Models display forms of hind Hilde**



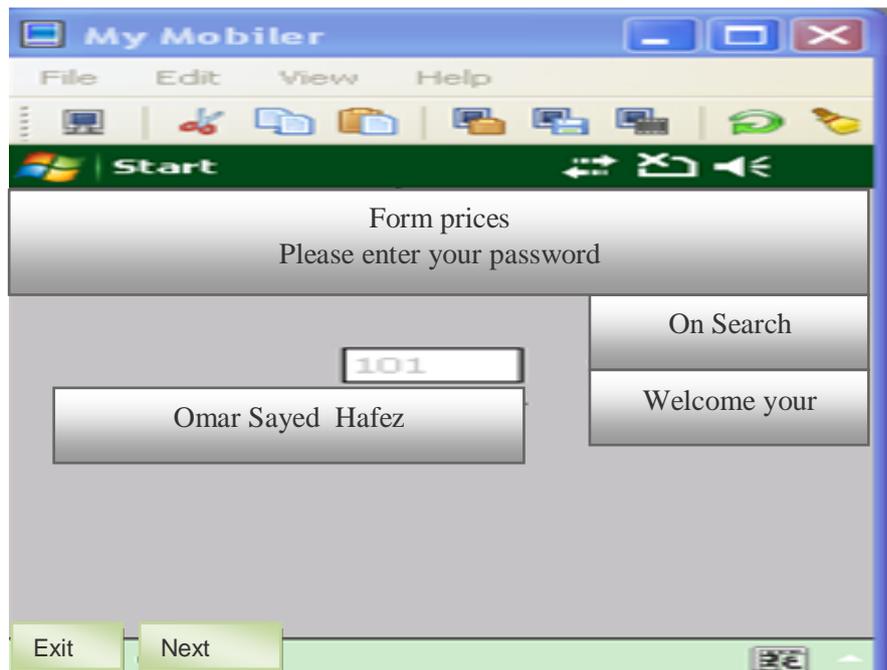
**Screens show "Last Word" show prices on hind Hill The main screen**

- 1 - When entering a researcher for the first time the screen in this way.
- 2 - Enter code researcher (exchange code).
- 3 - Enter the password.
- 4 - Enter the password again to confirm.
- 5 - Click this button Enter on the device



**The main screen**

- 1- the screen in this way.
- 2- in the case of the health code and password shows the name of the researcher as they appear next word in the bottom of the page next to the word out.
- 3- Press the Next button to move to the next screen.
- 4- Press the button exit in case of exit from the program.



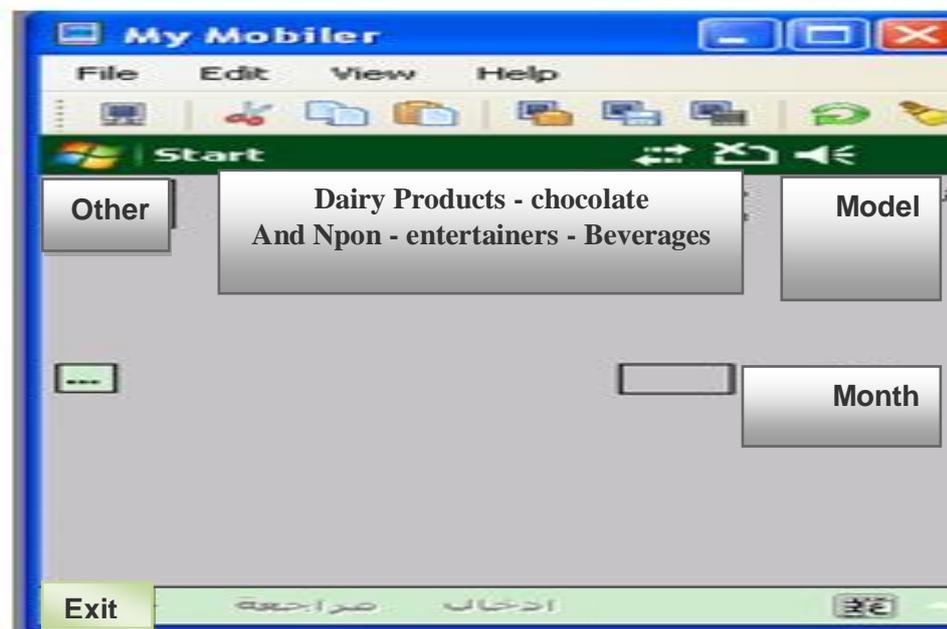
**Screen models researcher**

- 1 - the screen in this way.
- 2 - Shows the table containing the researcher models (code and the name of the form).
- 3 - Next to the researcher pressed the form to be accessed



**Screen models researcher**

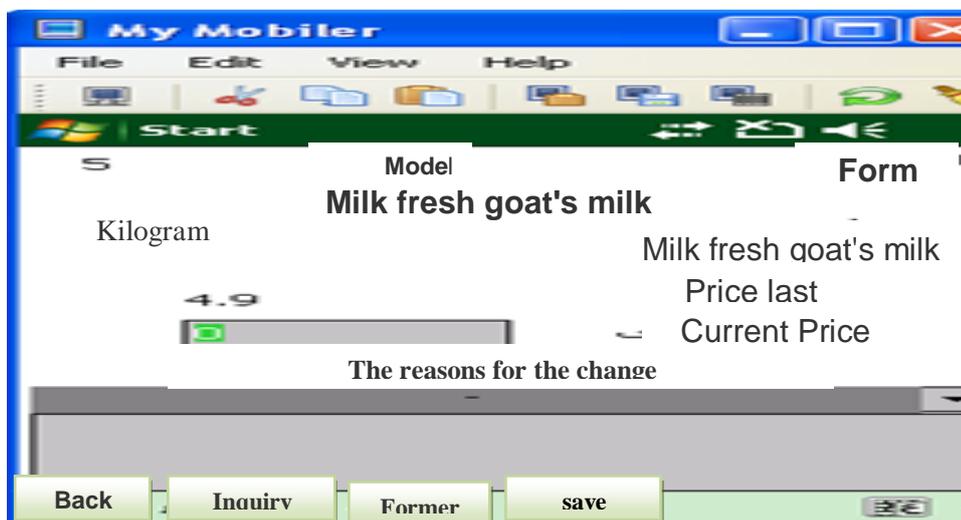
- 1 - The screen in this way.
- 2 - The researcher chose to model number (5), for example, a monthly model.
- 3 - Enters the researcher month's figure.
- 4 - Button presses Enter



**Screen commodities researcher**

- 1 - the screen in this way.
- 2 - shows the model number and the name of the source and the name of the product or service, quantity, unit price and the previous current price of the commodity.
- 3 - represents the previous price of the commodity price recorded last her for the same source.
- 4 - When you record the current price of the commodity is compared to the price above to make sure it is accurate within the limits prescribed by.

- 5 - by clicking the Save button at the bottom of the screen is saved item and move to the next item.
- 6 - by clicking the button at the bottom of the screen earlier you return to the previous item.
- 7 - by clicking the back button go back to the previous screen to select another source or another model, and so on



## 7. Conclusion

The program of prices of programs which will form a strong factor in the statistical area in the world Star it will also help the statistical spread of awareness because of advanced technology and provide Efforts and time and provides accuracy and health data and forming the largest statistical database is not on the level of One State but on the level of the world our

Initial indications from the pilot studies suggest that the use of handheld computers would facilitate enhanced control procedures to further ensure best-practice CPI data collection principles are followed .Handheld com -putters also have the potential to speed up the subsequent validation of prices which have been queried and their transmission to Head Office .The more timely processes would also facilitate a number of improvements for instance the collection of a greater number of prices over the production cycle and more analysis of the

## 8.References

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