New methods in Time Use Surveys: Summary

Introduction:

Time use surveys are typically used to obtain a measure of how individuals spend or allocate their time across a range of activities over a specified period of time. Time use data can provide meaningful and useful insights into the daily life of the population and its subgroup, as well as the changing patterns on how people use their time. This data can be further used to understand the impact of these daily activities on the population's quality of life and well-being, health consequences of these daily activities, environmental impact, distributional inequalities etc.

The value of time use data comes from time being the greatest resource and the only resource that is shared equally by everyone. There are 24 hours in everyone's day, and this provides the same starting point for all. Comparative analysis of time offers an insightful overview of both production and consumption. For example, an individual may spend time on activities related to the labour market, care/supervisory activities. The amount of time which is leftover for rest and recreation activities forms an important aspect of personal wellbeing and standard of living for a given population. Although labour market activities are captured via traditional surveys and methods, a time use survey provides a more integrated and holistic picture of how various activities are integrated and divided into the lives of the population and its sub-groups. This not only provides a deeper understanding of people's social lives, but also enables a more comprehensive overview of the national economy by capturing goods and services produced outside of conventional measures of production.

Historically, the traditional way of collecting time use data has been heavily dependent on pen and paper time use diaries. Up until recently, countries have been using the full dairy approach to capture Time Use data, where respondents have the flexibility to write in their own words to describe the range of activities, they took part in. The full diary approach has been considered as the 'gold standard' for large scale surveys. A pen and paper full diary approach while providing comprehensive and granular insights can be quite resource intensive and burdensome at both ends (the interviewer and the respondent). Over time, National Statistical Institutes (NSIs), the UK's Office for National Statistics (ONS) being a key example, have started to move towards light diaries. The light diary design is similar to the full diary but is restricted to the collection of primary activities. This includes a limited pre-set of activities (30-40) which the respondents can choose from.

Over time with a rapid extension in technological advancements the complex and dynamic nature of everyday life is becoming more and more multifaceted. We all still have 24 hours in a day, but the number of activities that time is being split into has increased and evolved drastically. Understanding and adequately capturing these complexities requires an innovative and unified method of time use data collection.

Digitalisation of Time Use Surveys

With new opportunities and rapidly evolving technological advancements it became apparent to National Statistical Institutes and research organisations that continuing with the traditional pen and diary approach is not sustainable. Due to the extensive nature of traditional time use surveys, they often resulted in declining response rates, as well as additional burden on data processors processing the data. Additionally, with the introduction of new technology such as smartphones it became possible to capture a further range of activities and variables e.g., location. Additionally, traditional survey methods are time consuming as you need multiple field interviewers to collect data, but they are also quite costly. A pen and paper full diary approach required NSI's to invest a significant amount of time and money on collecting survey data. Subsequently, this posed a barrier on the frequency of data collection. Therefore, for the above reasons it became clear that new methods for time use data collection must be explored.

In the UK there are two online applications which collect time use survey digitally; ONS's Online Time Use Survey (OTUS), and the Extended Light Digital Diary Instrument (ELiDDI) developed by the Centre for Time Use Research (CTUR). OTUS and ELiDDI are built on the same principles and structure to Harmonised European Time Use Surveys (HETUS). This enables international comparability, generalisability and harmonisation in analysing current and historic time use trends. Use cases from both the ONS and CTUR indicate that a digital survey results in similar quality data to HETUS with response rates not too far away from traditional methods with interviewers and resulting in significant time and cost efficiencies. Digitalisation of Time Use Surveys has also enabled NSI's to collect data more frequently, as filling out and completing surveys is less burdensome on both the respondents and data processors.

Despite the many advantages to utilising technology and digitalising Time Use Surveys, there are challenges that are yet to be addressed and explored further. For example, although digitalisation enables cost reduction by eliminating the need for an interviewer to be in the field, it also takes away the human interaction and the positive impact that may have had on response rates. The correlation between response rates and the use of field interviewers is yet to be fully understood. There is a possibility that respondents when filling out surveys digitally may potentially have more room for misinterpreting the question or not fully understanding it, which may impact the quality of the responses. Whereas an on-field interviewer has the flexibility to ask probing questions or explain the question correctly. The implications of digitalisation are not just restricted to Time Use Surveys, as this is a more generalised approach across a range of national surveys including the census. Therefore, the impact of having on-field interviewers and response rates can be assessed from a wider lens across the range of household surveys.

How can we reach a more harmonised approach?

One of the ultimate goals of being able to capture Time Use Data is to be able to obtain insights on subjective well-being and standards of living. To be able to do so, we need a consistent and harmonised approach in collecting Time Use Data. National Statistical Institutes (NSI's) have an integral role to play in reaching a harmonised approach internationally. For example, NSI's need to be consistent in keeping the activity framework the same i.e., the same set of pre-coded activities which respondents can choose from, following the same international classification (HETUS Classification) and so on. More importantly, further consideration needs to be given to:

- What questions should be included in the surveys and how should we be correctly framing those questions.
- As well as a deeper understanding on how certain questions can be misinterpreted by respondents and the impact this may have on the quality of data in being able to understand subjective wellbeing.

For example, current surveys include questions on the time spent on supervisory care activities. However, the real question is whether supervisory care is an activity or more an obligation/responsibility? Classification of supervisory care as an activity may not provide an adequate picture on individuals' subjective wellbeing and happiness. Therefore, a more unified approach is required by NSI's all the way from survey design to implementation. This includes, designing survey questions to piloting the survey with several different questions and assessing the impact of this on survey responses.

<u>Key questions to be addressed</u>

1) How can this data be related to other sources?
2) Time Use Data for policy? How can we best utilise this data? What does this data tell us about how roles and responsibilities over time have changed? Fragmentation and structural changes of activities? Quality Vs quantity (more activities being undertaken compared to the past within 24 hours), the impact of multitasking on quality of life/well-being?
3) What does fragmentation tell us about how different households (median income, high income, low income) and the type of activities they are engaging in? How can we relate this to income data?
4) Gender inequality? The difference in quality of life and subjective well-being between men and women?
5) How do we measure opportunity cost of other activities? How to measure the negative impact on well-being?