The Value of Charitable Giving

Development of a Wellbeing Valuation for Charity Retail for use as 'anchor' values

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This paper summaries the derivation of a wellbeing valuation (WV) for use in a Social Return on Investment (SROI) study for the Charity Retail Association (CRA).

Summary

What is a Wellbeing Valuation?

Wellbeing valuation is a way of showing what a change in an individual's life (an outcome) is worth to them (in terms of their income). It uses statistical analysis of a dataset to look at 2 things:

1. What happens to an individual's wellbeing if they experience the outcome?
2. What happens to an individual's wellbeing if their income changes?

The valuation combines the answers to these 2 questions:

3. If we know what happens to an individual's wellbeing as their income changes, then we can calculate how much income they would need to get the same amount of wellbeing as they have from achieving the outcome!

This is what a wellbeing valuation tells us – the equivalent amount of income required, to get the same change in wellbeing, that results from experiencing the outcome.

This can be done with any data that has the appropriate variables in it:

a. subjective wellbeing
b. income
c. the outcome you wish to know the value of

A study can collect this data from survey respondents (primary data) or look for existing data that might be adequate (secondary data).

At higher levels of rigour, where confidence is required in the results, sample sizes of 500+ are required to achieve statistical significance. This often means secondary data is used.

In this example the outcome we are valuing is an increase in a sense of **giving back (to others)**. We find this in Understanding Society together with the other ingredients we need: **Income**; and a question about **Life Satisfaction** that we will use for subjective wellbeing - *Using a scale of 1 to 10, how do you feel about your life as a whole right now?*

If we can see in this data that, for example,

1. **Life satisfaction** goes up by 2 points when **giving back (to others)** is achieved

and unrelated to giving back (to others), we can also see that

2. **Life satisfaction** goes up by 2 points when **Income** increases by £6,651

then the value of **giving back (to others)** is £6,651.

There is a little more to it than this, for example, we know that wellbeing does not go up linearly with income: if you have low income, a little more makes a difference; if you have high income, a little more makes little difference! So, our statistical model that results in the value of an increase in a sense of **giving back (to others)** takes this (marginal utility) and many other things into account.

The rest of this paper covers more of these technical issues and explains the method followed.

Background – Social Return on Investment and Social Value

Social value is used to support organisations to determine the social value they generate (Social Value UK, 2009, 2012). Social value provides an opportunity for the public sector and non-profit organisations to maximise the impact of their resources towards generating positive social change (Estonian Social Enterprise Network, Koç University Social Impact Forum, 2017) and make informed choices regarding innovative and holistic ways in which outcomes can be achieved, and how best to design and deliver interventions and activities (Department for Digital, Culture Media & Sport, 2012; Social Value UK, n.d. c). (Although the application developed here is within non-profit organisations, its use is not limited to any sectors (Social Value UK, 2009, 2012).

Research has questioned the adequacy of international measures of value such as the Gross Domestic Product (GDP) or Cost Benefit Analysis as these can be used in contrast cost but do not include the benefits of an activity in terms of individual wellbeing, therefore there is a need for more culturally- specific measures for social value, including for example a measurement of 'the good life' (Lawlor, 2017).

Other alternatives exist instead to determine value. One of these alternatives is the Theory of Value which consists of the monetary value that an individual attaches to a good or service is the quantity of money required for that individual to have the same experience or effect as the one created by the activity or service being valued (Trotter, 2014). It is recognised, however, that the definition of value may change for different people in different contexts, cultures and circumstances (Social Value UK, 2009, 2012).

SROI principles (Social Value International, 2017) advocate a bottom up approach to defining value based on an individual's preferences: Practitioner networks, led by Social Value International, define Social Value as: *the quantification of the relative importance that people place on the changes they experience in their lives* (Logue, 2019). Involving individuals in rigorous valuation in a practical and proportionate way has been a challenge in measuring social value internationally. Social Value International Guidance on Valuation (Social Value International, 2019) includes weighting approaches as a simple way of collecting primary data from individuals about the relative importance of outcomes to them. At higher levels of rigour, the guidance also includes Wellbeing Valuation.

In the context of the SROI study, however, no Wellbeing Valuations were available in the UK for the outcomes identified. To increase the rigour of monetary valuations within the SROI study, a Wellbeing Valuation was derived using national life satisfaction (LS) data.

Monetary Valuation in SROI

Social Value UK (Social Value UK, Hall Aitken, 2014) argue that the need for monetary valuation goes beyond the desire to present to external audiences: Most organisations have a pretty good idea of the costs of what they do. Annual accounts, management accounts, budget reports and a whole accountancy profession add up to a great deal of effort to make sure this is the case. Some organisations are quite good at counting what they do with these resources. They can track the number of users or contacts, or customers. Many can provide some evidence that these activities lead to some sort of change. But few can explain clearly why all this matters. What would happen if they did not exist? What is the real value of what they do? Social Return on Investment (SROI) sets out to redress the balance by looking at value not just cost. SROI aims to increase social equality, environmental sustainability and wellbeing. SROI is a framework for measuring and accounting for change and this much broader concept of value.

Things that have monetary value or that are presented in monetary terms, for the most part, are the

only type of value that is measured and accounted for. This includes the profit or loss/costs of delivering products and activities, the salary and tax contributions from a job, or GDP for a nation. These become definitions of success – money talks. As a result, these things with financial value take on a greater significance and many important things get left out and do not get considered equally when we make decisions. Decisions made like this are not as good as they could be as they are based on incomplete information about the combined importance of economic, social and environmental changes.

Producing an Anchor

We have sought, therefore, to develop an approach that brings rigorous monetary valuation to the SROI study. However, this has been done with this notion of additional translation, without compromising the benefits internally of relative valuation - A single monetary valuation has been derived around a common outcome, to 'anchor' all the monetary valuations (or translations) on.

Measuring the 'Good Life'

Defining a 'good life' can be a very subjective exercise as well as a challenge, as what people define as 'good' may be very different in different contexts, cultures and countries. This section describes some approaches that are currently relevant and useful to try to provide a definition to the measurement of a 'good life'.

Individual subjective wellbeing (also sometimes referred to as life satisfaction, quality of life and happiness) has been identified as one of the most relevant and widely used indicators, despite being criticised as being very subjective (Lawlor, 2017). Life satisfaction has been described as a very sensitive measure to the things in life which people think will impact their lives, therefore it is a robust measure of people's welfare (Trotter, 2014). Fujiwara and Trotter (2014) highlighted that life satisfaction consists of a balance of emotions and feelings together with the cognitive assessment of how well people's lives measure in comparison to their goals and aspirations, which means that there is an implied retrospective judgement that can be problematic if people do not have an accurate recollection or are influenced by contextual factors during data collection.

Considering both the strengths and limitations, individual subjective wellbeing, represented by life satisfaction, was selected as the dependent variable for this derivation as research has found that there is a stronger relationship between life satisfaction and personal income than well-being and personal income (Lawlor, 2017) and would therefore be more relevant for a model used to develop a valuation. Fujiwara (Trotter, 2014) defined this process as Wellbeing Valuation (WV).

Wellbeing Valuation (WV)

Wellbeing Valuation is an approach which estimates the impact of the activity or service on a person's life satisfaction (LS) in monetary terms.

Wellbeing Valuation requires a statistical treatment of 3 variables within a dataset:

- Life satisfaction (LS)
- Income
- Variable under investigation

For example, if it was found that volunteering leads to a 5% increase in people's life satisfaction, then the next step would be to identify the exact amount of income that would be needed to achieve the same 5% increase in life satisfaction. The method used looks at the value process from outcomes to their value for individuals by identifying outcomes from large national datasets and matching them to the outcomes delivered by the project's activities (Trotter, 2014).

Selecting Data

For the purposes of the SROI study, the common outcome to be valued was giving to charity (described by those interviewed for the study as 'an increase in a sense of giving back (to others)'). The variables required were, therefore:

- Life satisfaction (LS)
- Income
- Giving to Charity

Other variables, likely to influence life satisfaction, are also required to include in the analysis to rule them out and have a clear result of the effect on the variable under investigation.

Following the method (Trotter, 2014) we employed multivariate analysis techniques. These are methods that control for as many of the possible differences across different groups as possible. This was undertaken in a multivariate regression analysis, where we controlled for all the main determinants of life satisfaction.

A short list of determinants of life satisfaction is well established in the literature and we use a set of variables that are included as standard in most wellbeing research and set out in Green Book (HM Treasury) guidance on wellbeing valuation (HM Treasury, 2021). These are summarised by Fujiwara and Trotter (Trotter, 2014) as:

- Income
- Age
- Gender
- Marital status
- Educational status
- Employment status
- Health status
- Number of children and other dependents (including caring duties)
- Geographic region
- Housing and environmental conditions and crime levels in the vicinity
- Social relations

The following dataset was found to have the requisite variables required for the UK: Understanding Society (including British Household Panel Survey) (ONS (Institute for Social and Economic Research), 2009, 2020).

The aim was to derive a value for a sense of giving back (to others), which was a common outcome for the SROI, using life satisfaction and income, controlled by other variables as appropriate according to significance within models that could be established.

Method

The development of the valuation followed the methodology documented by Fujiwara and Trotter (Trotter, 2014). This statistical analysis enables us to estimate the impact of an outcome on a person's life satisfaction.

There are 3 phases to the method (Trotter, 2014):

Phase 1. Income Model
Phase 2. Non-Market Good Model
Phase 3. Monetary Equivalent Value

Results
A multiple regression analysis was carried out to predict life satisfaction using data from the Understanding Society dataset.

The statistical treatment of life satisfaction data within the Wellbeing Valuation approach (WV) to produce monetary valuations is not without its challenges and criticism (over and above the criticism and subjectivity discussed above).

The selection of other variables to include within the statistical analysis is a matter of judgement, according to those variables likely to affect life satisfaction. Oman & Taylor (Oman & Taylor, 2018) raise 'questions about the operationalisation' of variables in the method we have based our approach on. The example they aimed to repeat 'includes some variables and excludes others in its construction of terms, thereby implying a prior decision concerning which variables relate to happiness and which do not. If the operationalisations are too narrow, … then the apparent positive effects from could reflect something broader'.

We, therefore, included fewer independent variables; focusing only on those with the strongest relation to life satisfaction and avoiding 'over fitting'.

Model
A model with all the above variables was developed. Variables with little or no effect or significance in the model were removed, resulting in the best fitting model.

The model consists of six predictor variables (independent variables) selected from the literature and determinants (above) as relevant for people's life satisfaction (the dependent variable). These variables are:

Education	*highest educational qualification ever reported*
Household Size	*number of people in household*
Income*	*gross household income*
Gender	*gender*
Employment	*did paid work last week*
Health	*general health*

* Log of income was used as income is usually right skewed as there is an unequal distribution of income, log of income reduces the impact of heteroskedasticity and reflects marginal utility effects.

The overall model was significant and predicted 18% (R^2 values) of the variance in life satisfaction (despite having selected fewer independent variables than the method described by Fujiwara and Trotter (Trotter, 2014). This amount of 'fit' (the percentage of the variance in the dependent variable explained by the model) would be considered adequate for a model or study attempting to predict human behaviour (compared with a physical process, for example). In our situation, subjective wellbeing is potentially even more variable. The model is, therefore, judged to be appropriate to

derive a wellbeing valuation.

Regression Statistics	
Multiple R	0.423714535
R Square	0.179534007
Adjusted R Square	0.179321262
Standard Error	1.292460807
Observations	27004

ANOVA

	Df	*SS*	*MS*	*F*	*Significance F*
Regression	7	9867.8	1409.686	843.8933	0
Residual	26996	45095.6	1.670455		
Total	27003	54963.4			

The following table shows the individual contributions that the independent variables provide to the overall model.

It should be noted that charitable giving was coded in the data as 1 = 'give' and 2 = 'don't give', so a negative coefficient here shows a positive contribution (life satisfaction goes up when the answer for this variable goes down from 2 (don't give) to 1 (give)). Similarly, health was coded from 1 to 5 where 1 was 'excellent' and 5 was 'poor'.

As can be seen, health, employment and (notably) charitable giving make a significant and positive contribution.

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	6.725636	0.050825	132.3285	0	6.626016	6.825257	6.626016	6.825257
Education	0.001915	0.000224	8.537673	1.44E-17	0.001475	0.002354	0.001475	0.002354
Household Size	-0.078519	0.005663	-13.8655	1.45E-43	-0.08962	-0.06742	-0.08962	-0.06742
ln_ Income	0.000036	3E-06	12.07077	1.84E-33	3.04E-05	4.21E-05	3.04E-05	4.21E-05
Gender	-0.026832	0.015906	-1.68687	0.091639	-0.05801	0.004345	-0.05801	0.004345
Employment	0.224151	0.017071	13.1307	2.9E-39	0.190691	0.257611	0.190691	0.257611
Charitable Giving	-0.229304	0.016942	-13.535	1.33E-41	-0.26251	-0.1961	-0.26251	-0.1961
Health	-0.571821	0.007984	-71.6216	0	-0.58747	-0.55617	-0.58747	-0.55617

Calculating the Anchor
The average household income was taken as a mean from the data. This value was £49,619

The coefficient of lottery vs. income effect on life satisfaction was consistent with Fujiwara and Trotter (Trotter, 2014) (phase 1). This value is 1.103.

Charitable giving was selected as the anchor variable of interest, due to the context of the analysis for which this value was derived in the first instance. The coefficient (or Beta value) for charitable giving was (+) 0.229. Using these values, the income equivalent was calculated.

$$£49,619 - e[\ln(£49,619) - (0.229/1.103)] = £11,466$$

The value derived for average charitable giving in a year is, therefore, £11,466. This figure was used as the anchor and proxy for 'an increase in a sense of giving back (to others)' for volunteers.

The amount given in donations was also available in the national data (amount given to charity in the last 12 months), so the overall wellbeing valuation, as an average, can also be fine tuned to show the national average value per pound of giving/spending. Therefore, the wellbeing valuation for £1 given/spent can be calculated.

The average value of spend by customers and value of donations to charity shops was also known from CRA data. The value of donations was used. Therefore, the value for average charitable giving/spend in a year, as a proxy for giving back (to others) in the context of charity shops can be calculated.

$$£11,466 / £271 \times £157 = £6,651$$

This figure was used as the anchor and proxy for 'an increase in a sense of giving back (to others)' for customers.

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