

An Impact Assessment Model for Web-based Time Banks

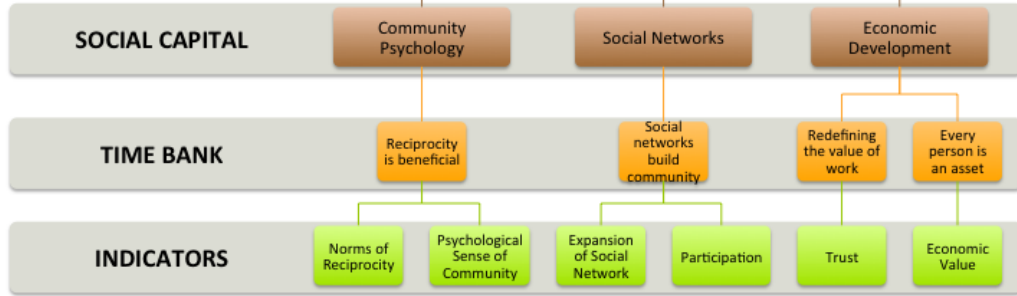
A thought-experiment in the operationalization of social capital



Liz Moyer, MPA-Development Practice 2015

Lizkmoyer@gmail.com

Data Collection Instruments



Cost Benefit Analysis Summary TIMEREPUBLIC 2014-2018	
COST	
Economic Risk	\$45,000
BENEFIT	
Market Value Savings	\$120,000
NET BENEFIT	
Total	+\$75,000
Benefit to Cost Ratio	2.67

Service	ECONOMIC VALUE		ECONOMIC RISK		Participation	
	Market Value Savings	Hours Exchanged	Total Savings	Individual Risk	Total Risk	Net Benefit
Writer and Author	\$15	27.50	\$413	\$4	\$110	\$303
Chef	\$11	14.55	\$160	\$0	\$0	\$160
Social Network Expert	\$15	203.55	\$3,053	\$4	\$814	\$2,239
Programmer/Web Designer	\$20	71.30	\$1,426	\$9	\$642	\$784
Photographer	\$14	49.05	\$687	\$3	\$147	\$540
Translator	\$19	249.05	\$4,732	\$8	\$1,992	\$2,740

Edgar Cahn's (2004) Theory of Co-Production

$$\text{Social Capital} = f(\text{psych, soc, econ})$$



SAMPLE TABLE OF METRICS

Metric	Instrument	Answer Format/Formulas of Analysis
PSYCHOLOGICAL SENSE OF COMMUNITY		
"Would you say that most of the time people try to be helpful or that they are mostly looking out for themselves?" / "Would you say that most people in TB try to be helpful or that they are mostly looking out for themselves?"	Survey	Multiple Choice
NORMS OF RECIPROCITY		
Account balance: Ratio of the total number of hours spent to the total number of hours earned within the network.	Website analytics	$f(\text{reciprocity}) = \frac{H_{\text{spent}}}{H_{\text{earned}}}$
EXPANSION OF SOCIAL NETWORK		
"In the past month, how many new people have you met?" / "What percentage of your TB contacts did you meet for the first time through TB?"	Survey	Multiple Choice
PARTICIPATION		
"I can improve the conditions of my neighborhood." / "Through TB I can improve the conditions of my neighborhood."	Survey	5-point Likert Scale
TRUST		
Percent of TB members that received an average reputation rating of 4 stars or more in all categories: "punctuality," "communication," and "quality."	Website analytics	$f(\text{reputation}) = \frac{P_{\text{Reputation}}}{P_{\text{Total}}}$
ECONOMIC VALUE		
Market Value of Service Exchange	Website analytics	Marginal: $f(\text{market value}) = H(s_{-1}) \times w(s_{-1}) = v(s_{-1})$ Aggregate: $F(\text{market value}) = \sum [v(s_{-1}), v(s_{-2}), \dots, v(s_{-20})]$
Economic Risk of Service Exchange	Website analytics	Marginal: $f(\text{risk}) = [w(s_{-1}) - w(s_{\text{min}})] \times H(s_{-1}) = r(s_{-1})$ Aggregate: $F(\text{risk}) = [r(s_{-1}), r(s_{-2}), \dots, r(s_{-20})]$