

Shipman Theory in Behavioural Economics: A Review of Theory and Empirical Work

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Abstract

Decisions involving consumers' choices made in the market are not strictly rational but on many occasions they are influenced by social, cognitive, psychological and emotional factors. These decisions have consequences for market prices, resource allocation, and returns. The aim of the study was to test a hypothesis and consequently to develop or modify a theory that challenges the principle that human rationality is not the only thing that controls market decisions but also other non logic factors such as sentimental affection behaviours do affect decisions. The method used was the interview method coupled with case study approach. Furthermore, other strategic interaction methods such as observation techniques were made in a Ghanaian Harbour. Results show that when individuals make choices and decisions in market transactions, which are connected with human beings and they also have economic consequences, they are influenced by whether they have sentimental affection with them or not. Lack of sentimental affection with persons compels consumers to demand for magnitude needs that are appraised as powerful rational incentives in the determination of economic transactions. The conclusion is that behavioural economics assumptions are supported by the findings of the study, especially, the concept that people often make decisions based on approximate rules of thumb and not strict logic. In this essay one also sees market inefficiencies concerning the mispricing and non-rational decision making that occur in the market during day to day business activities.

Keywords: behavioural economics, decision, risk-taking, psychological, cognitive, emotional factors, finance

INTRODUCTION

Momentary decision or hasty choice making is common in trade as well as in the everyday world of the consumer or the buyer. It functions tremendously well in domestic trade market, international market, and stock market. Consumers as well as buyers usually deal with momentary decision making involving money, which could affect not only their consumption behaviours, but also their whole live existence as human beings on earth (See Arrow, 1963). When such decisions take place in the private as well as in the international market level, the risk becomes so high that the incomparability will be seen as possessing high probability that will be ($p = 1$). Momentary decision involving money requires skill, intelligent minds, sacrifices, sentimental, and cognition such that one could sometimes turn around and question the mental stability of those clients, consumers, or buyers, who became involved and made successful decisions that became accepted as worthy to be emulated (Arrow, 1951; Arrow, 1953). Many consumers face these decisions constantly in their private lives; they entail higher risk, intelligent rationalization, superb decision making ability, and ultimate desire to be above the problem or predicament in the world filled with risk, uncertainty and chaos (Arrow, 1959).

PURPOSE OF THE STUDY

The purpose of this article is to show that in many cases empirical findings challenge the assumption that it is solely human rationality that prevails in modern economic transactions. It has been proved in many pioneering works of behavioural economics and welfare economics, and still continues to gain popularity in modern market research analyses (Kahneman, 1972; Kahneman&Tversky 1979; Kahneman *et al.* 1982). Many analysts not only see some classical economists who theorized about behavioural economics so many years ago, but also brand them as belonging to the camp of behavioural economists (Ashraf *et al.* 2005). In other words, these pioneers were aware of the roles behavioural aspects or components play in the mediation of human values, social choice and consumption behaviours (Battalio *et al.* 1981; Chen *et al.* 2006; Frank, 2012). In this case, these scholars are not far from those who think that novelty, stress, and biological roots in humans function tremendously well in human market behaviour (Sarapultsev&Sarapultsev, 2014; Rubin & Capra, 2011; Minton & Kahle, 2013; Zhukov, 2007; Shubiket *et al.* 2002; Tversky&Kahneman, 1981).

MARKET AND BEHAVIORAL ECONOMICS: RESEARCH HYPOTHESIS

The Shipman Theory or The Economic Theory of the Need-At-The-Moment predicts that when an individual faces dangerous/threatening situations in real life, which concern his whole life existence that also have affinity with economic matters/consequences, the focus of the predicament automatically shifts from this individual to encompass other individuals that mean much to this former individual or those that the former individual has sentimental affections with.

It is the intention of this article to give weight to and also explain the dynamics of people's consumption behaviours that are connected with the threat of their personal lives and psychological well beings. In other words, in attempting to rationalize about a commodity as well as market stock, properties or bonds, the rationality does not inhere in the cognitive structures alone but also depends on the emotional aspects/intelligence of the consumer (Aggarwal, 2014; Grafstein, 1995; Kakelet *et al.* 1981; Kahneman & Tversky, 1973; Kahneman & Tversky, 2000; Kahneman & Tversky, 1984).

SHIPMAN THEORY—THE BASIS OF THE THEORY

In social and interactional world where people meet everyday, we often become aware that circumstances that people find themselves in could determine or influence the manner they will behave at a particular point in time (Gleeiman *et al.* 2007; Myers, 2008; Baron, 2006; Baron *et al.* 2009; Aronson *et al.* 2006; Brewer *et al.* 1994; Wrightsman *et al.* 2004). A kind man or a God fearing man who is a devout Christian when faced with the possibility of saving his life from armed robbers could behave in a manner that will make him become a murderer in the end (Tredous *et al.* 2005; Tversky & Kahneman, 1971). So it is in the world of business, where another respected businessman who is faced with bankruptcy in his superb thriving company, which is headed by his only dear son, could end up sacking him instead of maintaining him in this top position. All said and done, in social psychological investigations it has been revealed that, our good motives fail to sustain or exonerate us from certain circumstances, which make us feel threatened or put us in danger (See Tversky & Kahneman, 1973; Tversky & Kahneman, 1974). We make momentary/quick decisions concerning these things that require our skill in handling unforeseen circumstances (Katona, 2011). It is these same circumstances that sometimes prevent individuals to spend their immediate resources to deal with those considered as *magnitude*

needs (wants or demands) and instead become concerned with *priority needs (wants or demands)* at the moment. It could be a person's own goods from the harbour which he would neglect for the simple reason that certain circumstances beyond his control influenced him to do that. When this kind of situation is the case with businessmen, as well as private individuals, the extent of their resources would not be capable of aiding them to deal with those important claims that confront them at a particular point in time (Kahneman, 2003).

Our meticulous analysis resulting from our strategic social psychological interaction study in the Ghanaian port in 2013 furnishes us with certain useful knowledge, which makes us propose that the crucial need at the moment influences clients as well as market businessmen for making momentary decisions that could resemble the opportunity cost model usually discussed in economics or the financial world (Camerer, 2003; Crawford, 1997; Dufwenberg *et al.* 2004). But the difference is that, with regard to the need-at-the-moment, these decisions may be unfavourable such that, they become like the gamble type of decision or *random walk*, (See Fama, 1965) which put those individuals engaged in it at a higher risk (Camerer, 1997; Kahneman & Tversky, 1979). We feel confident to name this new theory The Need-At-The Moment Theory, because of its social psychological nature and its affinity with economics (See also Shafir & Tversky, 1992). It prevents many prospective individuals as well as businessmen from clearing their valuable properties which they had invested earlier to be claimed at the right time in a Harbour. Here, priority needs, wants or demands are given precedence more than those needs that concern magnitude needs or wants in real life situation. It does make the poor African traveller not able to meet the requirement in time to clear his goods due to the social psychological needs or demands. It makes a famous doctor to deal with a choice between salvaging his reputation which has economic consequences or committing suicide to avert his own family catastrophe of financial loss (Tversky & Kahneman, 1974).

Decisions made in connection with these choices are often not able to be made known to people closer to them and not even authorities that are aware of their crucial financial situations or vulnerability in dealing with themselves. They are private and these require a quick stance to make those quick and rightful decisions. In the case of the African traveller and many businessmen, the need may be the obvious fact of lacking money itself or resources that concern contacts that could help these individuals to deal with their problems or clear their goods or assets in the Harbour.

The economic theory of The Need-At-The Moment is usually disregarded by all people, including the government as legitimate for someone or a company to use as an excuse of not being capable of clearing one's things from the Harbours. It is something that nobody will be prepared to listen to as tangible reasons for explaining why goods cannot be claimed at the right time. After all, banks and investment companies are around that are willing to give loans for any person that could present collateral security, which should not be a problem for new companies as well as established ones. The privacy nature of this need or demand is so important to clients as well as businessmen in many of the cultures where borrowing is not practiced as the norm (See Worchel *et al.* 2007).

REVIEW OF EMPIRICAL MATERIAL: MARKET AND SOCIAL BEHAVIOR Three Behavioural Case Studies

Case Study One

Case-Shipman, a famous medical practitioner elsewhere in the world, has through his medical practice met and murdered many of his patients in the attempt to enrich himself with the forged donations these patients have made to him. Suddenly, in one of the cases the children of the deceased made thorough investigation that led to the discovery of the forgery which the doctor had engaged in for years. Shipman is arrested and faces charges of murder and professional malpractices, which could mean his forfeiting all his property and belongings, including his pension. Shipman through rationalization, superb decision ability, and his ultimate desire to be above the current problem that he faces, which has economic consequences takes the higher risk of committing suicide in order to allow his family whom he has deep sentimental affection to inherit his fortune. This involved his confrontation of making a choice to salvage his reputation, which has economic consequences or taking the higher risk of ceasing to exist which could enrich the treasury of his family.

Here it could be asserted that the social psychological factor of circumstances influencing situational choices and the need-at-the -moment might have also contributed to this choice which Shipman made. The problem was about him exclusively, and he could have dealt with it had it not been concerned with economic matters/consequences, which led to the automatic shift of focus to those that were more close to him in affection. The case also has to do with making choices that have to do with priority need choice and magnitude need choice. In Shipman's case, though there seems to be magnitude need of living and an attempt to present his case in order to defend his reputation and profession,

which he could have done very well, probably saving his life and profession or reducing sentences that would have been given him. But as compared to these two choices, Shipman chose the priority need as against the magnitude need, the latter being his defending himself which would have allowed his family to loose his enormous fortune.

Case Study Two

An African traveller, who had travelled to Europe for many years but had not been capable of acquiring his own resident permit decided to return to his country of origin briefly in order to visit his parents. Since he had no resident permit of his own, he decided to borrow someone's passport/travel document to make this quick journey. On this occasion he bought two cars which he had wanted to sell and make a little money in order to reduce his expenses of this travel. With this pressure on his mind, he came home and probably due to uncertainty in life discovered that one of his dear aunts who helped him when he was a child during his school age was dead. Suddenly, due to tribal needs, he was faced with either clearing the cars or spending this money in **organising** the burial ceremonies of the aunt. As the money he brought could not clear the cars later, and his own situation of using a borrowed permit, he was confronted with these choices of priority need and magnitude need of either going back to Europe immediately to be with family and his continued economic support in working in Europe or stay to find ways to clear these expensive cars which will fetch him huge profit in Ghana.

The African through rationalization, superb decision ability, and his ultimate desire to be above the current problem that he faces, which has economic consequences takes the higher risk of returning to Europe in order to meet his family whom he has deep sentimental affection to be with. The two cars brought home could not be cleared from the harbour because of the financial situation he found himself in; they became the property of the government that confiscated them. The traveller has chosen priority need as against the magnitude need of clearing his two expensive cars he had brought with him from abroad leaving enormous debt. Due to this social-psychological factor of circumstances influencing the need situation and the economic need-at-the-moment, he makes choices that have to do with sentimental focus of his dear family and children.

Case Study Three

The economic theory of The Need-At-The Moment is also exemplified with Africans who live in countries where poverty is the norm and people live from hand to

mouth. Here, one will find clients as well as patients making private decisions to rather prefer to die rather than to utilize the only resources they have accumulated for years for their families or successors. It happens that due to the difficulty involved in making money in these countries, patients who may be rich and yet have no other persons in the family who are well to do fail on many occasions to utilize all the accumulated money they have saved in the bank or home to get proper health care (See Selye, 2003) when they are seriously ill which could lead to their death. The stress in health and disease is such that they see no reason to use all resources and probably do not know whether they would get well or not; it could lead to their bankruptcy and entire family fortune disappearing overnight. This family inheriting their fortune becomes their ultimate sacrifice, which will make them choose to die than to empty the family treasury at one point in time. The choice they make has economic consequences, and since it concerns money matters, the focus automatically shifts from the individual to the sentimental affection with family. "What will they do after my death when all is gone?" This also has to do with priority need and magnitude need; the dying being the priority need as against the magnitude need of saving himself and his life. The risk becomes higher than one can think of.

STATEMENT OF A THEORY

It has been established that individuals make decisions about economic matters not only on rational basis, but also on social-psychological grounds. When confronted with a personal tragedy which an individual could have dealt with coolly by himself alone, the case becomes automatically shifted to other persons who the individual has sentimental affection for. This prediction is something that usually occurs in the real world. But we take it for granted that these things happen and that they concern peoples' choices with regards to priority choices as against magnitude choices. Individuals do not feel disturbed in a cognitive way for making priority needs the first, instead of the magnitude needs in the economic world where rational decision making and profit orientation tasks are appraised more than sentimental ones. Shipman theory illuminates on the three concepts discussed frequently in behavioural economics. Firstly, it throws lights on the concept heuristic that indicates that people often make decisions based on approximate rules of thumb and not strict logic. Secondly, it illuminates on the idea of framing, which is the collection of anecdotes and stereotypes that make up the mental emotional filters that individuals rely on to understand and respond to events. Thirdly, in this essay one sees market inefficiencies concerning the mispricing and non-rational decision making that occur in the market during day to day business activities. The

results of the study provide us with an important theorem or *market law* that determines the choices in which people make with regard to their consumption behaviours.

PRIOR-MAG Theory

If an individual has no one he has sentimental affection with, in matters of tragedy where there is economic consequences, the probability that he will choose the magnitude needs (wants) as against the priority needs will be higher.

Referring to one of the cases studied above, that is, Case-Shipman, had it not been sentimental relationship with his family, he, like any other person, would have defended himself rather than die.

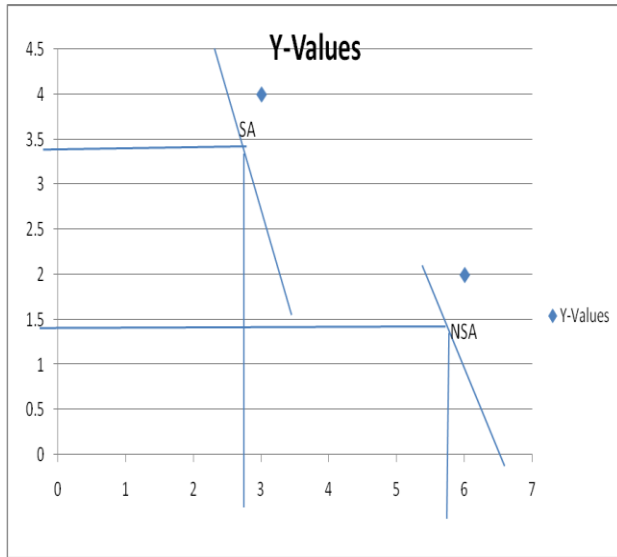
MARKET AND CONSUMER BEHAVIOR: MATHEMATICAL BEHAVIORAL ECONOMICS THEORY

Consumers' behaviours are influenced by the two choices mentioned in the theory propounded with data collected from Ghana harbours. This theory has similarity with the opportunity cost model discussed in economics and the financial world. When people are faced with MNC and PNC, the choices vary, depending on whether individuals have sentimental affection relationship with individuals or not. Therefore, in matters of economics when consumers or buyers have to deal with choices, they do not inhere in the rational domain alone, but also on emotional factors, cognitive, and social psychological factors. The question that has to be asked is that, what other practical lessons could we learn from the investigation so far made in connection with practical choices? What contribution does the Shipman theory make in the study of risk-taking which functions commonly in behavioural economics?

Magnitude Need Choice (MNC) versus Priority Need Choice (PNC) in Behavioural Economics

Let us review the model below which explains the manner in which consumers choose from one of the choices confronting them.

In figure 1, a higher percentage of 4.5% indicates a higher priority than 1%. Magnitude increases in numbers, so that a need of 4 is more rated higher than say 2.



Priority Needs rated in Percentages
Needs rated in Magnitude
Figure 1. Priority needs (wants or demand) at the moment

The model above therefore shows priority needs as well as magnitude needs at the moment for the Client KM. Here magnitude need of 3 (x axis) is given priority of 4 % (y axis) while Magnitude need of 6 (x axis) is given only 2 % (y axis) to signify that the former which has Sentimental affection(SA) involved means a lot for KM. It is clear on the y axis that priority needs have double strength, that is, 4 as against the magnitude needs of 6 which have only 2 because of lack of Sentimental affection (NSA).

DISCUSSION OF PRIOR-MAG THEOREM

Let us now put this theorem in a mathematical language:

PNC = Priority Need Choice
MNC = Magnitude Need Choice

If No Sentimental Affection (NSA) exist, then Magnitude Need Choice (MNC) is greater, that is, $p \geq 1$
If Sentimental Affection (SA) is present, then Priority Need Choice is greater, that is, $p \geq 1$

Alternatively:
If NSA, then MNC is $p \geq 1$
If SA, then PNC is $p \geq 1$

Again:
If MNC is $p \geq 1$, then there was NSA
If PNC is $p \geq 1$, then there was SA

PRIOR-MAG THEOREM

Suppose there are two exclusive alternative choices {MNC, PNC}, such that one of these alternatives is to be picked by an individual A ($A \in N$) in a situation when there are extreme economic consequences connected with these said choices. Suppose further that the individual A has NSA or SA with a third party B (i.e., wife, children, relative, friend), and the probability that any of the choices mentioned above could be selected as appropriate or better alternatives.

Then Prior-Mag Theorem states that the probability that any Individual A ($A \in N$) will choose MNC as against PNC which will exceed p and approaches 1 will depend on whether A has NSA with this other individual B.

CONCLUDING REMARKS

The arguments of the study have followed the line of behavioural economics, which has other related sub-fields such as behavioural finance with emphasis primarily on the effects of psychological, social, cognitive, and emotional factors on the economic decisions of individual consumers and institutions and the consequences for market prices, returns, and the resource allocation. In these tripartite areas, we illuminate on the concept of heuristic which indicates that people often make decisions based on approximate rules of thumb and not strict logic. The idea of framing is the collection of anecdotes and stereotypes that make up the mental emotional filters individuals rely on to understand and respond to events. With regards to market inefficiencies one observes the mispricing and non-rational decision making that occur in the market during day to day business activities.

The foregoing investigation has shown that Shipman theory adheres to the principles of behavioural economics, which brings to our attention the powerful effects which psychological, social, cognitive, and emotional factors have on the economic decisions of individual consumers and even institutions. These usually have their consequences for market prices, returns, and the resource allocation.

Consumers have priority needs as well as magnitude needs which usually confront them in their private world as well as the market domain. The analyses in the study have shown that the hypothesis put forward earlier could be supported. Cognitive focus is shifted from the individual level to the other external relationships when the former is threatened with choice matters that have financial consequences. Sentimental affection in a relationship could influence individuals' choices and decisions made in the market. Lack of sentimental

affection in relationship could easily make consumers appreciate/prefer the choice of magnitude needs over against the priority needs. The latter need, which is Magnitude needs, concern profit oriented tasks or properties that bring huge reward and consequently, increase worldly financial gains.

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