

A Conceptual Model for Ethical Business Decision-making under the Influence of Personal Relationships

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Abstract

This paper proposes a conceptual model for ethical business decision-making. The purpose of this model is to explore the ethical implications of personal relationship in business exchanges. Firstly, this paper introduces personal relationship in business exchanges. Secondly, three normative theories of ethics that are relevant to the business environment are presented. Thirdly, a literature study on the existing models and frameworks for ethical business decision-making is presented. Finally, a new model is presented; this model is developed using an approach based on the theory of connection. The new model supports inclusion of mathematical modules for autonomous ethical business decision-making.

Keywords: Ethics, business ethics, personal relationship, dyadic business exchanges, connected system, theory of connection

1. Introduction

In a dyadic business exchange environment, the relationship between two organizations is basically between two agents, and the relations can be of a personal-relationship nature as the business relationship may grow to become personal one with time. On many occasions, in spite of the personal nature of the relationship, interacting agents are still able to coordinate their actions to bring economic benefits to their organizations. However, it is possible that a 'selfish' agent may put his or her personal interest before the organization's benefit; this demands investigation of the loss of collective welfare due to selfish and uncoordinated behavior. Recent research efforts have focused on quantifying this loss for specific environments; the investigation of price anarchy has provided a number of measures by which it is possible to design social systems with robustness against selfish behaviors (Jensen, 2002; Namatame et al, 2006).

The main objective of this paper is to develop a new conceptual model for ethical business decision-making under the influence of personal relationships; an approach based on the theory

of connection is used for the model development; the theory of connection is used in this paper, to get a systems perspective of ethical business decision-making: what are the elements and environments involved in the decision-making process, how the elements are connected or related to each other, how the elements, environments, and the interconnections can influence each other, etc.

Before we move to the next section, we present definitions for some of the keywords and terminologies used in this paper:

Ethic is defined as the principles of right and wrong that are accepted by an individual or a social group; *Ethical* code is defined as a system of principles governing morality and acceptable conduct and ethical motive as motivation based on ideas of right and wrong; and finally, ethics is the philosophical study of moral values and rules (WordNet, 2007).

Business decision-making which is crucial for the growth of any business, happens at all levels of a business, from strategic decisions about investment and direction of future growth taken by the board of directors, tactical decisions taken by the managers about how their own department may contribute most effectively to the overall business objectives, and operational decisions by all employees who make decisions about the conduct of their own tasks, responses to customers and improvements to business practice (Tutor2U, 2007; Ma and Davidrajuh, 2005). Decision-makers use of computer aids (spread sheets, decision support systems, knowledge bases, etc.) to support their decision making process, and make use of mathematical models for the analysis of the problem, to measure the costs of chosen action, and to evaluate the quality of the decisions made (Ma and Davidrajuh, 2005).

Structure of this paper: Section 2 presents some basic issues related to personal relationship in dyadic business exchanges. Section 3 presents three normative theories of business ethics that are related to the issue of personal relationship, and investigates the ethical implications of personal relationships according to the three theories. Section 4 presents some existing models and frameworks for ethical decision-making in business environment. Sections 5 and 6 present a new model that is developed by an approach based on the theory of connection. Section 7 shows the usefulness of the new model.

2. Issues in Personal Relationship in Business Exchange

This section discusses three issues (time factor, switching cost, and Guanxi) in personal relationship in business exchanges. Business relationships (or relational contracts (MacNeil, 1980)) that develop between organizations described as collective units on inter-organizational level are only for the economic benefits of the organizations involved. Personal relationship or loyalty between two agents from otherwise independent organizations, may compromise the respective organizations interests (Jensen, 2002). The problem of loyalty is especially sensitive in contexts where the individual agents hold high-trust-posts (Giddens, 1991). High-trust-posts involve tasks that are executed beyond the direct surveillance of the central leaderships of organizations. In this case, the personal relationship between the individual agents becomes the decisive factor of the business relationship between the respective organizations. Thus, personal

relationship can hamper economic profits that can be derived from the business exchange between the organizations.

2.1 The Time Factor

Personal relationship, stand alone or part of business relationships, take time to develop; see figures 1 and 2. When business relationships are to be developed quickly, the quality of personal interactions (relationships) may suffer due to stressful environment of relationship acceleration (Wilson, 1995); this phenomenon is also known as “time-compression diseconomies” (Dierickx and Cool, 1989).

===== Insert Figure 1 here =====

===== Insert Figure 2 here =====

2.2 Switching Cost

Personal relationship can also bring a business relationship to a stalemate at which conclusive decisions has to be taken whether to continue or discontinue the business relationship. The most important factor to be considered at this point is the cost of quitting (or switching cost) (Jensen, 2002).

Switching a business exchange relationship based on individual social contracts is considerably lower than for inter-organizational long-term commitments, such as strategic alliances. Relation-specific investments are first of all to be found in human asset specificity of the agents linking the organizations. The highest switching cost of individual social contracts is most likely to be as social costs between the individual agents involved. On organization-level these inter-personal costs are normally to be judged as low; however, there is no tool available to help an organization measure the switching cost of quitting a business exchange relationship that is dominated by personal relationship. Literature provides no mathematical models for this purpose; Lack of mathematical models for this purpose is mainly due to the adaptive nature of the economic agents and the uncertainties involved, and due to the complex nature of personal relationships involving huge number of parameters drawn from psychology, sociology, to management and economics.

2.3 Guanxi

Guanxi is a special case of personal relationships in business environment. The importance of developing personal relationship (‘guanxi’ in Chinese) in order to conduct business in China is well documented (Li and Wright, 2000).

We say guanxi is a special case because in the guanxi system, there must be personal relationship *before* the business relationship can foster. However, in this paper, we focus on the personal relationship that develops because of the established (long-term) business relationship in an open market environment; see figure 2. As shown in figure 2, in the beginning, the relationship between two interacting agents is purely a business relationship; after long-term interactions, personal relationship can foster between the two agents, and if the personal relationship becomes

the decisive factor in the business relationship, then we have a guanxi between the agents. In other words, with time, we move from open market system to guanxi system.

A closely related issue is the organization-to-organization guanxi (or inter-organizational guanxi, popularly known as the “keiretsu”, in Japanese language). In keiretsu, the “personal relationship” is not at the personal level, but at the organizational level (Miyashita and Russell, 1995).

3. Normative Ethical Theories

Literature provides meticulous works on ethical theories applied to business exchanges, e.g. Li and Wright (2000), Lovett et al (1999), Fan (2002) and Steidlmeier (1999); see Pearlson and Saunders (2006) for a summary of the works.

Three theories of ethics that are applied in business environments are *stockholder theory*, *stakeholder theory*, and *social contract theory*. These theories are called normative theories as they are prescriptive ethical principles for business environment and described in language accessible to the ordinary businessperson (Smith and Hasnas, 1999; Pearlson and Saunders, 2006). These theories and their interpretations and implications are given below:

3.1 Stockholder theory

According to the stockholder theory, the stockholders contribute capital to the businesses and corporate managers who act as agents in advancing the stockholders interests (Pearlson and Saunders, 2006). According to the originator of this theory, the only social responsibility of business and hence the agents, is to use the resources to engage in business activities designed to increase profits for the stockholders; profit making must be done by open and free competition, without deception or fraud (Friedman, 1962; Pearlson and Saunders, 2006).

3.2 Stakeholder theory

Freeman (1984) provides a formal definition of stakeholder theory: “A stakeholder in any organization is (by definition) any group or individual who can affect or is affected by the achievement of the organization’s objectives”. According to the Stakeholder theory, in addition to the obligation to the stockholder, agents are also responsible for taking care of the interests of *all the stakeholders* of the business; the term stakeholder refers to any group that vitally affects the survival and success of the corporation (e.g. employees, suppliers, distributors, customers) or whose interest the corporation vitally affects (e.g. the local community, customers) (Smith and Hasnas, 1999). This means, unlike stockholder theory that primarily look into the interests of stockholders, stakeholder theory balances the rights of all stakeholders (Pearlson and Saunders, 2006).

3.3 Social Contract Theory

Both stockholder theory and stakeholder theory do not talk about the society; according to the social contract theory, agents are responsible for taking care of the needs of a society without thinking about corporate or other complex business arrangements. Social contract theory forces the agents to interact in a way that brings benefits to the members of a society. Hence, society can grant legal recognition (‘social contract’) to a corporation to allow it to employ social resources toward given ends (Smith and Hasnas, 1999). The social contract allows a corporation

to exist and demands that agents create more value to the society than they consume for the business interactions.

3.4 Ethical Implications of Personal Relationships

By skimming through the normative theories of business ethics, one can see that these three theories related. The social contract theory is the most restrictive one, demanding that the whole society should be taken care of by the interacting agents when they conduct business exchanges. The stakeholder theory is lesser restrictive than the social contract theory, as instead it demands that all the stakeholders of the business (not the whole society) should be taken care. And finally, the stockholder theory is the least restrictive one, as it demands that only the stockholders are to be taken care of by the agents. Figure 3 depicts the relationship between the three normative theories due to their extensiveness in covering the elements of a society.

===== Insert Figure 3 here =====

Is the existence of personal relationships ethical or unethical? From figure 3, one would expect that it is only necessary to check against the social contract theory, as it is the most restrictive one. If personal relationships were unethical under social contract theory, then it would seem also unethical under stakeholder and stockholder theories. However, closer scrutiny presents a different account:

By the stockholder theory, any business interaction between the agents that does not profit stockholders is unethical. Hence, it is not unethical to establish personal relationships between the interacting agents, assuming for instance personal relationships profits stockholders by reducing the transaction costs. However, the most important issue that speaks against personal relationships is that stockholder theory assumes the free market system as the domain to conduct business exchanges; personal relations and it effects on business relations are not the elements of free market, thus unethical.

Under stakeholder theory, personal relationships in business exchanges present more complex ethical issues. The main issue is how much benefit accrues to stakeholders from the personal relationships between the interacting agents; Does personal relationships favor a group of stakeholders (e.g. shareholders and some employees inclusive the concerned agents) and harm other stakeholders (e.g. the consumers of the business). Generally, assuming that all the stakeholders of the business benefit (or rather, not harmed) from the existence of personal relationship between the interacting agents, establishing personal relationships would not violate ethical standards, unless it could be shown to outweigh the benefits of any stakeholder.

By social contract theory, the interacting agents must ask themselves whether existence of any personal relationships could compromise fundamental tenets of fairness or social justice. If society seems to loose at contemporarily or in future due to the existence of personal relationships in business exchanges, then personal relationships could be seen as unethical. If, on the other hand, the established personal relationships seem to net a benefit to society, then it could be considered ethical.

In summary, the normative ethical theories (stockholder theory, stakeholder theory, and social contract theory) determine whether business decisions are ethical or not based on the net economic benefits to stockholders, stakeholders, and to society, respectively. This means, for a complete analysis, ethical decision-making mechanism must utilize mathematical models for measuring the net economic benefits to different parties concerned.

4. Existing Models and Frameworks for Ethical Business Decision-Making

In the previous section a concise overview of the ethical theories was given followed by an analysis on ethical implications of personal relationships. In this section, a literature study is given on the existing models and frameworks that can guide ethical decision-making in business environment

4.1 A Framework based on Four Constraints

In business environments, there are many constraints that can guide and shape business transactions. Lessig (1999) presents a framework describing four constraints that regulate the behavior of cyberspace activities. Though the constraints are applied to cyberspace setting in Lessig (1999), they are relevant to general business environment; give below is our interpretation of the four constraints applied to business environment:

The first constraint is the law. Laws are rules or commands imposed by the government that are enforced through ex post sanctions; ex post sanction means that law retroactively makes criminal conduct not criminal when performed, but increases the punishment for crimes already committed. The second constraint is the market. The market regulates through the price it sets for goods and services. Unlike the laws, the market forces are varying and not fixed expressions. In addition, the market forces are imposed immediately and not in ex post fashion.

The third constraint is the code (*aka* architectural constraint). The architectural constraints are physical constraints, natural or man-made, restricts the freedom of business transactions. For example, if two interacting agents, residing in geographically distributed places, were to agree to a business deal over the telephone, then they must be available at the same time; in addition, they are obliged to document the verbal agreement in some robust way. If they decided to send the agreement as an email attachment, then they are obliged to use some digital signature to authenticate the document. In both ways, there are some restrictions.

The fourth and final constraint is the social norms. Social norms are informal expressions of a community that defines a well-defined sense of normalcy and expects the members of the community to follow. An example for social norm under business context is the dress code.

4.2 Modified Framework by Spinello

Lessig's framework included ethics under the broad category of "social norms". Spinello (2003) argues that the fundamental principles of ethics are metanorms and they have universal validity, and hence should not be classified as social norms that have only cultural or community value. The modified framework by Spinello (2003) is shown in figure 4. In figure 4, ethics is given a

directive role, that is, ethics should guide and direct the ways in which the constraints such as laws, the market, code, and social norms, exercise their regulatory power.

===== Insert Figure 4 here =====

4.3 A Framework based on Six Environments

Walstrom (2006) conducted an empirical study to investigate factors that impact on ethical decision-making processes regarding information ethics. Walstrom (2006) found that the two factors that had predominant impact were:

1. The social environment: religious values, cultural values, and social values; and
2. The government/legal environment: legislation, administrative agencies, judicial systems, etc.

There are four other factors too that exercised influence on ethical decision-making (Bommer et al, 1987):

3. Personal environment: individual attributes including personal goals, motivation, position, demographics,
4. Private environment: peer group, family, and their influences,
5. Professional environment: code of conduct, professional meetings, licensing, and
6. Work environment: corporate goals, stated policy, corporate culture.

Figure 5 shows the frame were ethical decision-making is impacted by six environments.

===== Insert Figure 5 here =====

4.4 A Model Emphasizing Personal Environment

On contrary to Walstrom's framework based on six environments that emphasizes social and legal environments, Haines and Leonard (2007) suggests that the impact of the personal and private environments have a greater influence in specific ethical situations. Thus, Haines and Leonard (2007) presents an integrative framework for examining the ethical decision-making process with individuals acting as both an external influence on beliefs and judgments and as an internal moderator that affects the decision-making process itself (Figure 6).

===== Insert Figure 6 here =====

4.5 Summary

The analysis presented in section 3 proves that for determination of whether business decisions are ethical or not demands mathematical models for measuring the net economic benefits to different parties concerned. However, existing models and frameworks presented above are only for qualitative reasoning as they do not support inclusion of mathematical models for decision-making. Thus, in the next sections, a new conceptual model for ethical decision-making is developed; the new model supports inclusion of mathematical modules for decision-making.

5. Developing a New Conceptual Model

The modeling approach is based on the “Theory of Connection (TOC)”. TOC is a Scandinavian invention with strong mathematical logic background and is based on the following mathematical concepts: Euclidean Space, Riemann Surface, Lagrange connection, and Hamilton connection; interested reader is referred to Bjørke (1995) and Franksen (1979). TOC has been successfully used for modeling, analysis and implementation of systems in diverse fields like mechatronics (Davidrajuh and Hussein, 2003), consumer electronics (Møller, 1995), e-government (Davidrajuh, 2004), production planning (Haavardtun, 1995), material flow (Wang, 1995), and in collaborative supply chain development (Davidrajuh, 2000).

5.1 Theory of Connection (TOC)

Detailed treatment on TOC is given in Bjørke (1995). The approach by TOC is summarized in figure 7. As shown in figure 7, a system consists of three fundamental components: *elements*, *connections*, and *sources*. The elements carry all the physical properties of the system; thus, elements are the fundamental building blocks of a physical system. Some of the elements in ethical decision-making are human resources (interacting agents, business managers, shareholders, etc.), computer and network resources, and buildings and offices of the businesses. The property of an interacting agent (human resource element) is her capacity to recognize moral issues, her ability to make moral judgments, individual characteristics, whereas the property of a building is its capacity to hold items and humans.

===== Insert Figure 7 here =====

When there is no connection between the elements, the set of isolated elements (also called *primitive elements*) is called *the primitive system*. Connections reflect how the elements in a primitive system influence each other, thus connections represents the structure of a system. The set of connected elements is called *the connected system*.

Finally, sources are the environment's influence on a system; it is the source that ignites a system into action.

5.2 Modeling approach

The objective of our approach based on TOC is to offer a strategy by which behavior of complex systems could be determined from the known behavior of its individual elements. The modeling approach by TOC can be summarized as follows (Davidrajuh, 2004):

Phase-1: identifying the primitive system

- Break up the system into its basic parts (the primitive elements); this group of isolated elements is called "the primitive system".
- Set up the governing equation of each element independent of other elements, by that, we isolate the variables in the individual elements.
- Concurrently, by the process of measurement, we will create an abstract model of the whole system defining the topological structure of the whole system.

Phase-2: making the connected system

By means of the topological structure, we connect together the variables in the individual elements. That is to set up the governing equations of the whole system, or "the connected system".

Phase-3: applying the sources, and solving the connected system

By applying the sources we can determine the behavior of the system governed by the equations of the connected system.

6. A New Model for Ethical Decision-Making

In this section, we will follow the three phases of our modeling approach to build a new conceptual model for ethical decision-making.

6.1 Identifying the Primitive System

There are a number of elements already identified in the literature: Lessig (1999) identifies four elements such as laws, the market, code, and social norms, as the primitive elements of a system for ethical business decision-making. Besides the four elements identified by Lessig (1999), Spinello (2003) lists ethic as an important primitive element playing the regulatory role; Walstrom (2006) identifies six elements such as social environment, legal (or government) environment, personal environment, private environment, professional environment, and work environment, as the primitive elements. In addition to all these elements listed in the literature, human resource elements such as the interacting agents, managers, shareholders, etc., are also primitive elements of the system.

6.2 Making the Connected System

First we will identify the sources and the output of the system and then the connections that exists between the elements.

6.2.1 The sources and the output

The sources are the external disturbances that agitate the system to produce an output. Without business opportunities there won't be any business exchanges; thus, business opportunities are the sources of the system. Obviously, ethical business decisions are the output of the system (figure 7).

6.2.2 The Connections

Given below is a step-by-step formulation of the connections between the primitive elements of the system. Figure 8 shows the connected system:

1. When the input (a business opportunity) is fed into the systems, the legal environment and the work environment (business goals and objectives, etc.) must recognize the business opportunity as a valid one. For example, when a company in US receives a business opportunity from a company in Cuba, the legal environment will reject the opportunity. In some other cases, an opportunity may be rejected because the opportunity does not satisfy business goals and objectives (work environment) of a company.
2. Business relationships evolve from valid business opportunities, to realize business exchanges. The business relationships are formulated by the professional environment (code of conduct, professional meetings, etc.) of the respective companies involved.

3. Business decisions are made to strengthen profits from the business relationships. A major player that influence formulation of business decisions for business relations is the personal environment (individual attributes including personal goals, motivation, position, etc.) and the private environment (peer group inclusive colleagues and immediate managers, family and their influences).
4. Finally, ethical business decisions evolve from business decisions. As Walstrom (2006) states, social environment (religious values, cultural values, and social values) plays the major role in shaping ethical business decisions. In addition, the agent's personal ethics (might also be called morality - the ability to recognize moral issues, make moral judgment, awareness about profit for "all the stakeholders", etc.) play an important role.

6.3 The Connected System

Figure 8 shows the model for ethical business decision-making. As figure 8 depicts, business goals and objectives are the driving force of business relationships. The six socio economic environments formulate the business decisions. And finally, it is the agent's moral judgment that shapes the business decisions; the agent's moral judgment depends on his or hers ability to recognize the moral issues, to establish moral intent, engagement in moral behavior, characteristics of the moral issue, and the individual's own characteristics or personality (Haines and Leonard, 2007).

===== Insert Figure 8 here =====

7. Exploiting the New Conceptual Model

The normative ethical theories (stockholder theory, stakeholder theory, and social contract theory) determine personal relationship is ethical or not based on the net economic benefits to stockholders, stakeholders, and to society, respectively. To calculate the net economic benefits, we need mathematical models that process parameters representing the status of the interactions between the agents; two of the parameters are already identified in section 2, the time factor and the switching cost. However, due to the complex nature of modeling the interactions between the agents, the number of parameters needed can be huge.

It is out of scope of this paper to present mathematical models to determine the net economic benefits for the different parties concerned. However, if such models are developed, then from the model shown figure 8 it would be possible to build a software system that could autonomously verify business decisions are ethical or not; figure 9 shows the architecture of such a software system that can make ethical decisions autonomously. The architecture shown in figure 9 is based on Petri net, a discrete-event based mathematical model; for more information on Petri net, the interested reader is referred to (Cassandras and LaFortune, 1999; Petri net world, 2007).

===== Insert Figure 9 here =====

In figure 9, circular (or oval) shaped components represent passive elements; some of the passive elements are input buffers for incoming business opportunities, intermediate buffers for storing

intermediate decisions made, and output buffers for storing final decisions etc. Rectangular components represent active elements such as inference engines for decision-making.

The reason for using Petri net based architecture is that it makes easy to shift the state of ethical decision-making (for example, from “Valid Business Opportunity” to “Business Relationship”) depending on the decisions made by the intermediate inference engines (such as the engine for “processing business opportunity” and the engine for “establishing business relationship”).

This paper also proposes the use of fuzzy logic for realizing the inference engines. The reason for proposing the use fuzzy logic is that fuzzy logic filters away inaccuracies in the input parameters; in addition, compared to pure mathematical approaches (e.g. linear programming), it is much easier to realize inference engines with fuzzy logic; for more information on fuzzy logic, the interested reader is referred to (Ross, 2004; Tsoukalas and Uhrig, 1997).

8. Concluding Remarks

This paper presents a new conceptual model for ethical business decision-making under the influence of personal relationships in business exchanges. For model development, we used an approach based on the theory of connection to identify the elements the make up the system, and the connections between them.

The conceptual model (shown in figures 8 and 9) is designed to incorporate mathematical modules and inference engines to support ethical business decision-making; mathematical modules compute net economic benefits to different parties; inference engines make decisions based on the outcome of the mathematical computations.

Further research: This work assumes that mathematical models can be established for measuring net economic benefits to different parties involved in the ethical issue; obviously, this is a further work of this paper.

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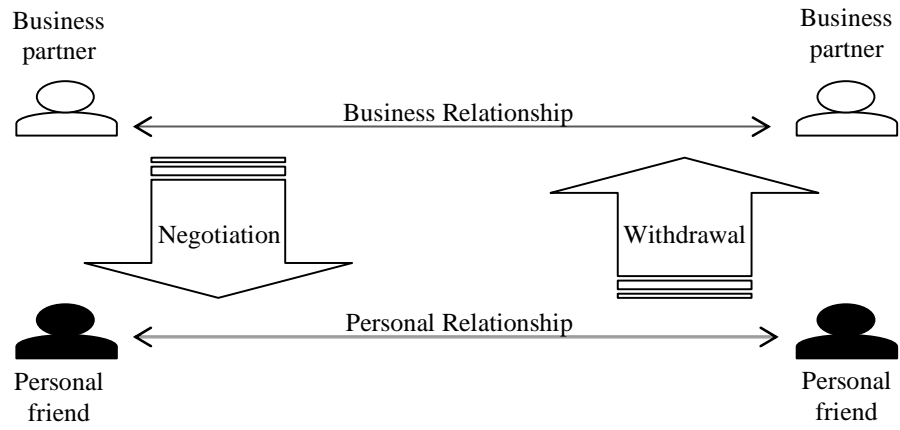


Figure 1: Personal relationships in business exchanges

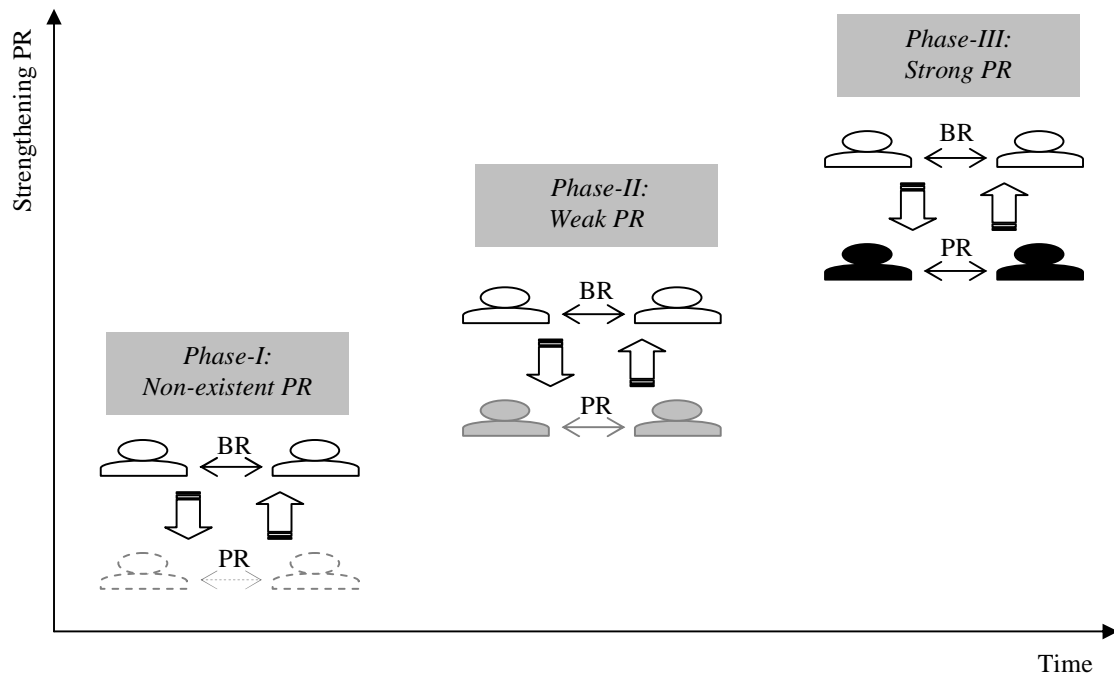


Figure-2: The time factor in establishing Personal Relationship (PR)

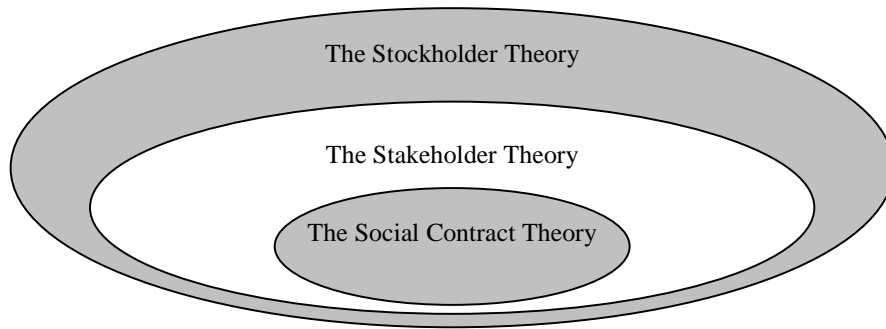


Figure 3: The relationship between the three normative theories

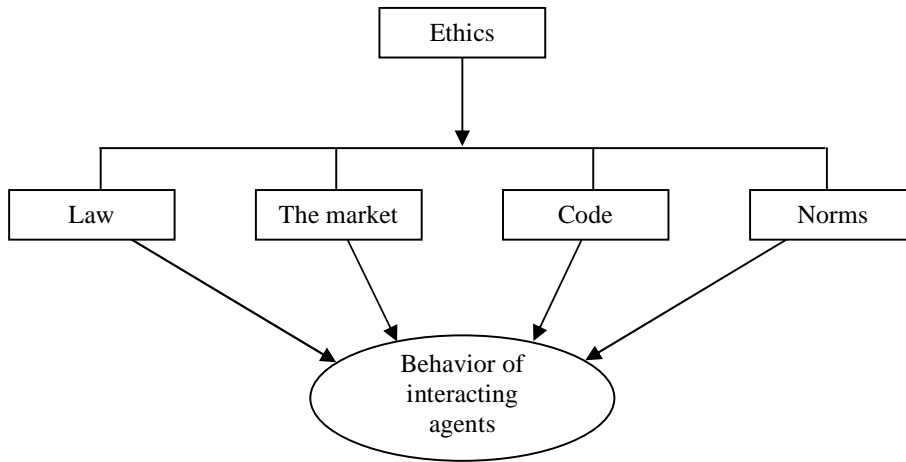


Figure 4: Constraints on interacting agents behavior in business exchanges (adapted from Spinello (2003), Lessig (1999))

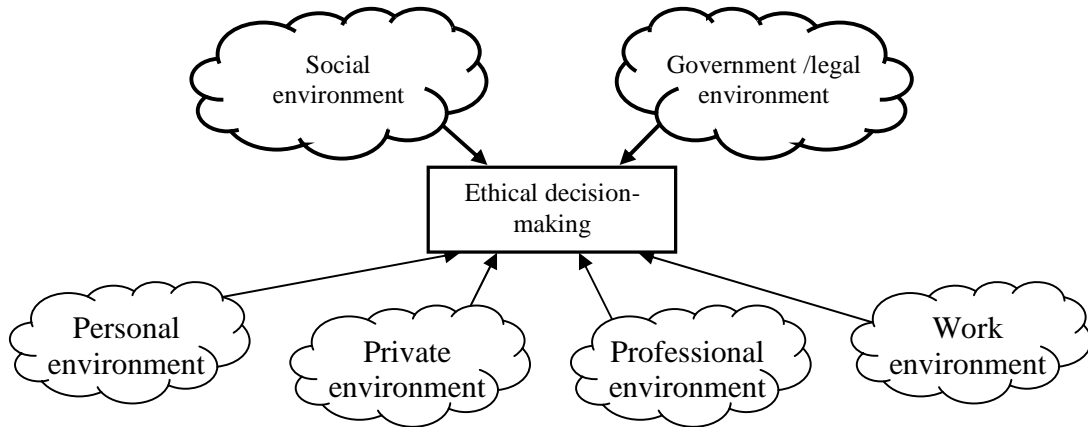


Figure 5: The six environments that impact ethical decision-making (Bommer et al, 1987; Walstrom, 2006)

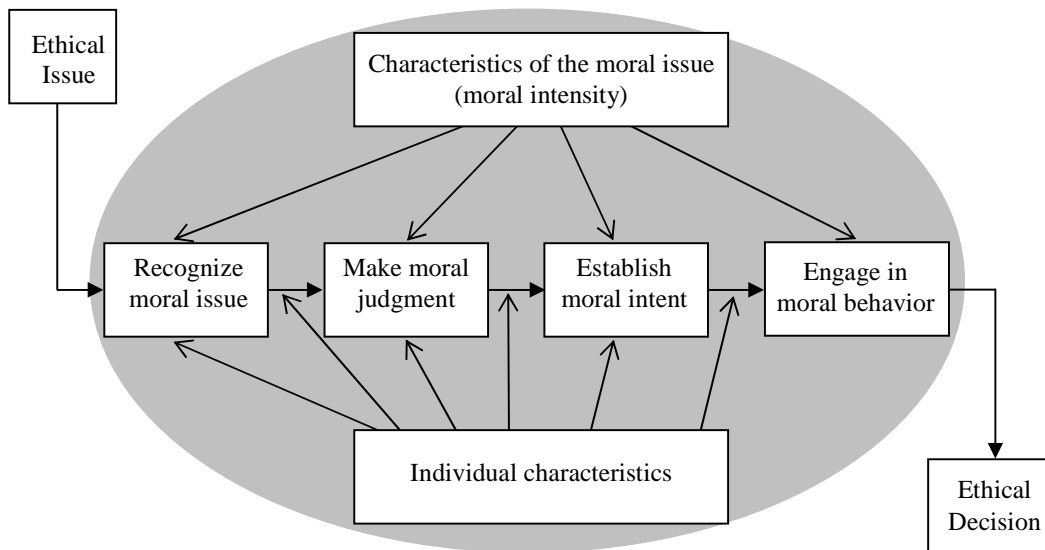


Figure 6: Impact of personal environment on ethical decision-making (adapted from Haines and Leonard, 2007)

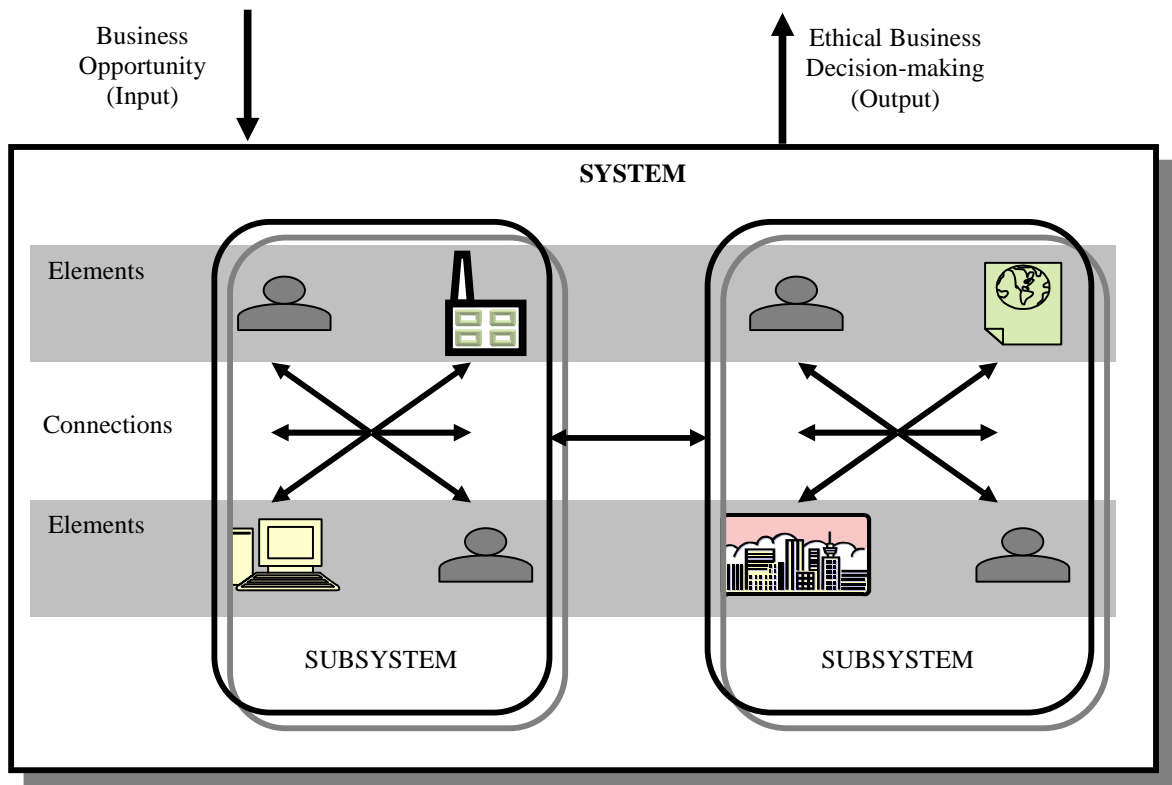


Figure 7: System perspective of ethical business decision-making (Davidrajuh, 2004)

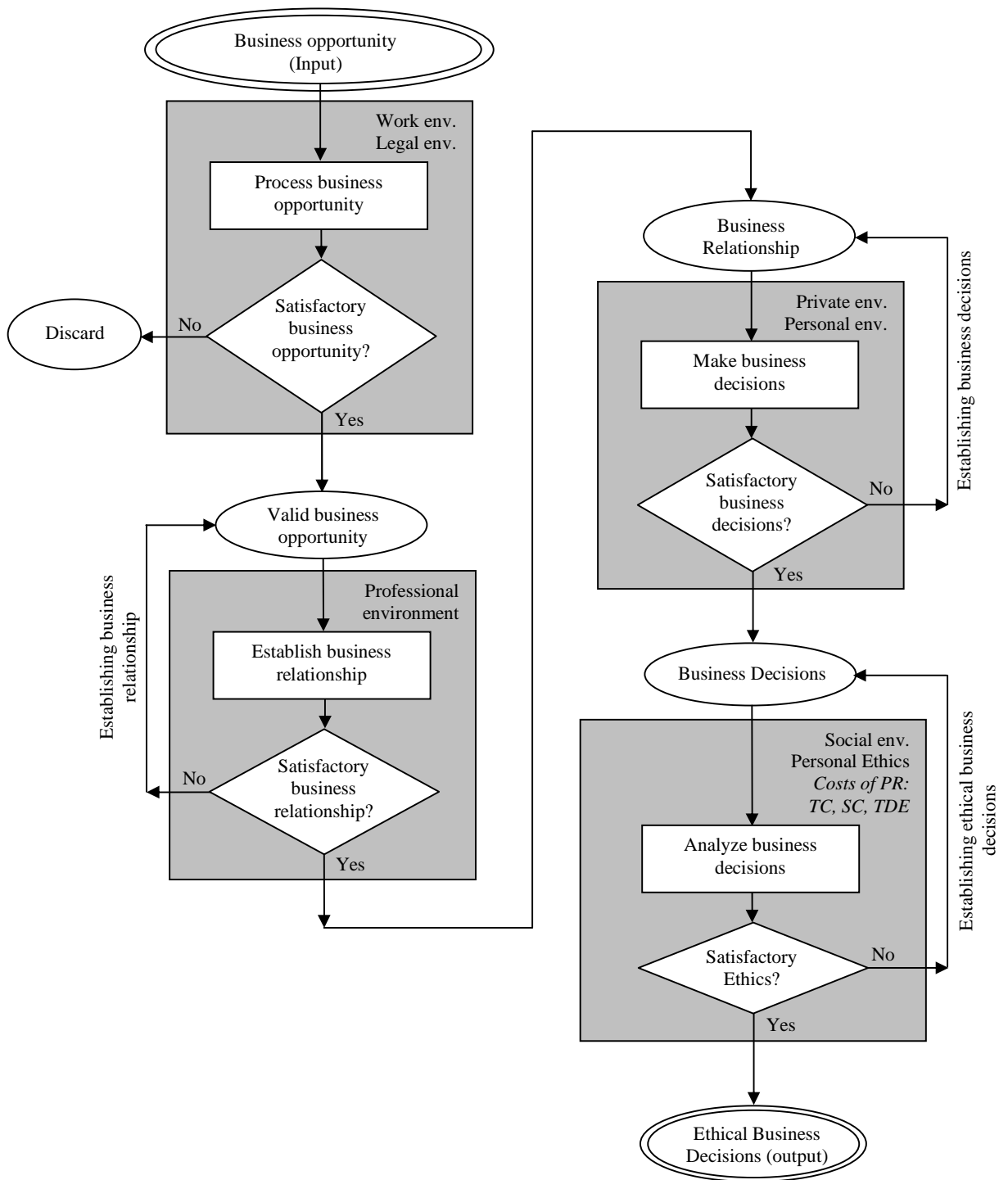


Figure 8: Model for ethical business decision-making

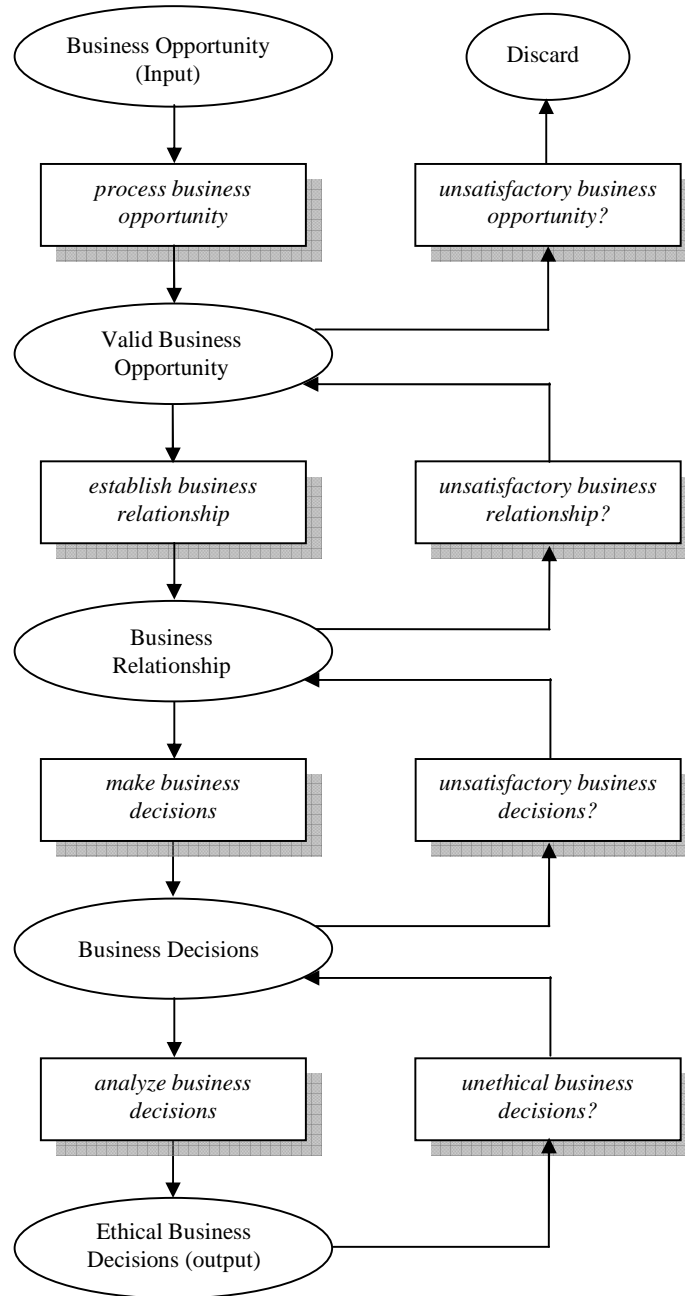


Figure 9: Architecture of a software for autonomous ethical business decision-making