**Explaining "Making Way" (strategy-making) and "Cognizing"**

**In the Strategic Urban Design Process**

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**Abstract**

The strategic urban design process (SUDP) occurs at the method level based on establishing a pair of functions and their interconnection in macro, middle and micro levels. Few researchers have attempted to explain such processes including "Cognizing" and “Making way" as two related concepts. Cognizing illustrates the current state of the city's super system hierarchically, and "Making way" helps conceive part of the probable (possible) situation. The mechanism creates causal relationships between the steps. The current study is a review one and was conducted using an analytical method and logical reasoning strategy. The study used a systematic approach to identify a two-step function to determine this mechanism. The steps function, sub-functions, and their mutual relations were first developed and then explained based on the process theory and the logical reasoning research method. The relation is formed with the flow of the specific information (Cognizing Outputs). Explanation propositions clarified the relationships between these two steps. The results of the explanation were shown with statements, and the emphasis was on waste and its return to the process cycle as feedback.

**Keywords:** Explanation, Urban design process, Cognizing, Making a Way.

**1. Introduction**

Confrontation with comprehensive static planes has led to the replacement of strategic plans with a systemic approach since the 1960s (Ashrafi, 2009, p. 91). A brief review of architecture and city theories reveals the transition in urban design from the traditional to the strategic process. This process can even be considered a tool for urban management and improving urban performance in response to future development requirements (Huang & Hoenggerberg, 1995, p. 400; Khalil, 2012; Steinberg, 2005, p. 1) .Several studies have stressed the significance and necessity of strategic city designing (Carmona et al., 2003; Frey, 1999, as cited in (Golkar, 2007)

John Moschus and Mark Schuster presented their research at the U.S. Urban Planning Forum, concluding that achieving a desirable urban design at the national level requires a large-scale strategic planning framework. The strategic urban design process (SUDP) involves determining the subject, recognizing, analyzing, summarizing, concluding, ideating, making, selecting, guiding, targeting, introducing projects diagramming, and mutual relations, the convergence of which creates the process.

The discussion of cognizing goes back to the time of Plato. Cognizing is expressed as a mental representation. Consciousness is created when the image is received (Brandimonte et al., 2006, p. 2). Since cognizing has been proposed as a function in this research, the word "recognizing" is preferred. However, "Making a Way" is a function that applies to available and achievable resources, whether power or action. The intersection of resources, such as strength, weakness, opportunity, and threat, creates feasible (possible) opportunities to transition from an "existing status" to a "creation status" in line with the defined goal.

Given that the urban design processes proposed thus far have few inputs, outputs, and rules on establishing the relations between the process steps, this research can be used to understand this issue in other processes. On the other hand, Simon (1970) emphasized the significance of these two steps in the design process, identifying urban design as a kind of design science for recognizing and solving urban problems (Simon, 1970).

"Explanation" is used as a practical term that explicates and expounds the mechanism of the relation. Explanation refers to expressing, clarifying, and explicating (Moein, 2007, p. 500) and revealing the emergence reasons. Scientists have discovered scientific rules in events, so the purpose of explanation is to understand these events, meaning that scientists discover the order and rationality governing evens, rather than making them more understandable. Scientific understanding is about recognizing the mechanism of events, and thus, analogical thinking is a critical process in scientific discoveries (Kao, 2014; Sadeghi, 2012). The mechanism is a causal process where several causes work together.

On the one hand, a mechanism itself is a set that has a unique effect; thus, it can be described as some type of cause. However, the mechanism components interact and have a causal ratio (Sadeghi, 2012, p. 13). The aim of this research is to explain the relationship between "cognizing" and "making way" in strategic urban design; therefore, it seeks to find the answer to the question: How is the relationship between "cognizing" and "making way" established? And how are the micro-functions and different levels of this relationship explained? In order to achieve the answers to these questions, the analytical research method and the logical reasoning research strategy were used.

Any explanation is logically a deduction or reduction reasoning (Haghi, 2013, p. 96). Therefore, this research used the deductive logical reasoning method to explain "cognizing" and "making a way" as a sample in the case of SUDP. Explaining these two is one of the requirements of the Strategic Urban Design Process. The information flow between the two and the steps and implementing the corresponding functions can guarantee SUDP.

**2. Review of the Literature**

**1.2. Explanation Conceptual framework**

Revealing and finding (Dehkhoda, 1995, p. 5608) are the mentioned explanation meanings. Explaining anything means doing clear and conspicuous, and function proves the work (Sayah, 2009, p. 243). Definitions of explanation refer to the act or process of expression or the facts and an improved understanding of them (LeFever, 2012, p. 20).

The term "Explanation" means "action or process of explanation," "what described," "clarification of misunderstandings," "conciliation," "integration," and "match." The explanation is a set of propositions that describe facts to clarify the causes, the conceptual background, and the consequences of facts. This description sets rules or regulations or tests the existing rules in exploration for any phenomenon. "We explain events to relate them to a general process," says Heather (1958). Explaining puts us in a better position. In the sense that it can predict events (Craik, 1967, p. 7; LeFever, 2012). A successful scientific explanation cannot deny or ignore the public facts (Faye, 2016, p. 254). Explanation of a phenomenon or set of data in general terms is understanding the phenomenon or data and discovering why it happens (Zahabi, 2006, p. 84). According to Einstein, in addition to the explanation's result, this phenomenon can be a sentence, a proposition, or even a reason that the information content has explained. Nonetheless, explanatory action should also be considered (Sadeghi Aliabadi, 2013, p. 40). An explanation is a way to unlock new knowledge and clarify the relations of the different aspects of a phenomenon (Shields & Rangarajan, 2013). According to Carl Hemple and Oppen Heim, the logical structure of explanation raises this question as to why this phenomenon occurs based on the previous conditions and general rules leading to the occurrence of the phenomenon (Hempel, 1965, p.246 cited in (Hon & Rakover, 2001, p. 11) .

Complexity and emergence have significant implications in the structure of the explanation mechanism. By re-examining the relationship between the explanation and the explanans, the whole system may be considered when presenting each level's explanation, especially when examining the formal cause (Wurzman & Giordano, 2009, p. 370). Explanation from Shaikh al-ʿhaikh point of view is presented in both longitudinal and transverse forms. Longitudinal explanations refer to one aspect of truth at its various levels. For example, in the case of existence, sometimes look at the theological level of the universe and sometimes look at its non-existent level. Transverse explanations exist in different widths of a level (Zahabi, 2006, p. 112). A functional theory focuses on the coherence and the totality of the components in the system and the state of dynamic equilibrium and controlled changes (Little, 1995, p. 156). Regarding the three macro, medium, and micro levels for each phenomenon and the external and internal rows for each level, Shaikh al-ʿIshraq sight can be considered as follows: Longitudinal explanations are traced between the three levels (macro, medium, and micro) and latitudinal explanations are traced in rows at each level.

The theory of inclusive law discusses the explanation that considers the scientific explanation model divided into two sorts: Deductive-legal and inductive statistical explanation. All explanations can be analyzed based on these two models (Sadiqi, 2007, p. 54). According to the deductive-legal model (Fig. 1), scientific explanations are all reasoning. Respond to questions about minor events or general arrangements under specific rules and conditions (Sadiqi, 2007, p. 52). Hempel (1942) pointed out that instead of the general outlined rules in the comparative-legal model, probabilistic hypotheses with preconditions can highly probable explanandum events .(Figure 1)

However, the statistical probability of the relations between varieties of recurring events is probabilistic, but the inductive probability is a logical, quantitative relation between certain propositions (Hempel, 1990 cited in (Sadiqi, 2007)). Proponents of this case known explanation as reasoning. They believe that phenomenon explanation is making a reason through the explanandum, which is logical or most likely from certain preliminaries (Ghavam Safari, 2008, p. 124), which explains the so-called explanans. The statement expresses an event that needs to be explained called explanandum. Scientific explanations often contain rules (Sadiqi, 2007, p. 52).

Figure (1)

**2.2. Process theory**

The explanation is a function that, during a process, presents the mechanism for relating two phenomena or events. Design and its steps are also a function that occurs during the processes. To better understand the explanation process, SUDP, cognizing, and making way should be described in the context of process theory. In general, process theory refers to scientific research. The function applies to inputs, so the output is understood and explained. In other words, this theory and the theoretical model derived from it deal with the existence of the relations between the components, how the mechanism establishes their relations, and the reasons for the existing relations. The relations are causal. However, some scientists have not accepted the causal relationship in the natural processes. The traditional reading of the process theory is challenged by the skepticism of some philosophers and scientists concerning the validity of the principle of causality in the realm of objective facts.

The process is a translation of the word "process" from the Latin word "processus" rooted in the meaning of movement and progress. In the eighteenth century, a piece of ice was introduced into physics, followed by the gradual melting of ice, and then, the ice piece was found its way to scientific fields. Since the early 19th century, with the efforts of scientists such as Charles Darwin in the form of the “process theory of evolution” and the big bang theory, critics of static interpretations of phenomena have focused on the process of cosmic formation. The traditional reading of the process theory stipulates that (Golkar, 2011, p. 101),

1. Each product is made up of a process.

2. Process is the cause of the product (causality)

3. Repetition of the process (cause)

Alfred North Whitehead stated that the realm of philosophical research and even metaphysics was explained as a process. With his process approach, he critiqued the traditional assumptions indicating that reality is formed from two parts: fixed and timeless "substance" and variable "accident." Whitehead stated that the essences "in essence" are subject to the process of change. According to Immanuel Kant, the principle of causality is valid at the level of human experience. It seems that the traditional reading of the process needs revision. A new reading of the process can provide the following:

1. The product is created by applying the function to the input.
2. The product is one of the process outputs. Product, result, effect, consequence, and supply are also other outputs of it.
3. In the process, the four causes of the product can be traced: The urban designer, the subjective cause, the shape of the field of occurrence of the function, and its superficial cause. Income is the material cause of the product, and function is the ultimate cause of the product.
4. The process consists of several steps.
5. Each step of the process includes input, function, output, waste, and refinement at different levels.
6. The product of each step is created by applying the function of that step of the input.
7. The product is the output of each step of the process. Product, result, effect, consequence, and supply are also other outputs of it.

In the process of each step, the four cases of the product are traced. The causes at each step differ from others.

The process theory posits that the process of a chain of natural events or designed functions is related to the output. The output includes: product, result, consequence, effect, and so on. The strategic urban design takes place through a process that follows the general theory of the process. It is followed by establishing mutual relations between the functions of the steps in the environment and their correlation through flowing information between steps. Flows refer to the flow of materials, goods, messages, data, information, knowledge, and so on (NourMohammadzad, 2006, p. 35). The strategic design of the city establishes a pair of relationships with other valuable functions in the environment, while the design process consists of the functions interconnected by information flow. A mechanism establishes the parallel relationships between the design of a city strategy with value functions and the related functions of this process. The mechanism of establishing the relationship between cognizing and making way to design the city's strategy is presented during the explanation process. It is necessary to consider these notions in process theory to gain a clearer perception.

**3.2. A theoretical model of the explanation process**

The logical explanation of a phenomenon means discovering its natural place in a series of relations that extend indefinitely in all directions. To explain, the phenomenon must be seen at the same time in its full individuality (as a whole in itself) and in the dependent position (as a component in a larger whole) (Yolton, 1959, p. 205). Karl Hempel and Paul Oppenheim in 1948 published a scientific paper in which they clarified the function and basic features of scientific explanation (Hon & Rakover, 2001, p. 10). The explanation is a process that sees the relations between the class and the categories identified in the previous step in the form of research structures and tries to formulate and prove their logical relations (banihashemi & Nourani, 2019, p. 24). Expounding and explicating are sub-functions of the explanation process, a process that can function by applying them and using the functions of fragmentation, disclosure, elucidating (proof and obvious reason), and an expression.

**1.3.2** **Expounding**

It means clearly expressing and revealing. In the terminology of physicians, expressing the facts and forms of internal and external organs and the number of bones and expressing the location and connection of each organ, veins and nerves, autopsy, interpreting. There is a confusing subject description (Dehkhoda, 1995, p. 706). It also means to cut into pieces and separate its components (Amid, 1985, p. 578).

**2.3.2** **Explicating**

It means clarifying, revealing, elucidating, expounding, and expressing (Amid, 1985, p. 640; Moein, 2007, p. 500) .It also points out to find and clarify a function or represent the subject (Dehkhoda, 1995, p. 6258). The mechanism is how different components of a system work or how they combine (Amid, 1985, p.969) or the interactions the device components use for a specific purpose (Moein, 2007, p. 1802). Mechanism refers to a set of components that work in union and lawful order to each other. Through their interaction with each other, the function is formed. The boundary of a mechanism and its components are determined by the intended function. Mechanisms have levels and ranks and can consist of other mechanisms (Sadeghi, 2012). They have causal relations with each other. Table (1) displays the explanation process.

Table (1)

**3.3. Strategic Urban Design Process**

There are types of urban design processes, such as rational Comprehensive process, strategic process, systematic process, Participatory process, problem-solving process. The strategic process is the focus of current research and two of its steps choose to explain through the deductive logical reasoning method. From the 1960s onwards, due to the complex nature of cities and the stagnation of master plans, strategic plans with a systemic approach replaced them. The process of designing a city is inherently "strategic" since it deals with the "creation of a better future" and is therefore inherently "strategic." Nevertheless, depending on the different levels of city design and the time horizon of the proposals, three models of "strategic," "tactical," and "operational” planning become relevant (Golkar, 2007, p. 11). The "CDS " City Development Strategy Document was also developed to establish participatory decision-making processes in developing countries and included project planning, situation assessment, visioning, strategy making, implementation, and monitoring (Golkar & Azadi, 2005, p. 2). “What is Urban Development Strategy (CDS)?” Providing preparations of planning, analysis, strategy making and implementation, monitoring, and evaluation are the strategic planning steps included in the CDS approach (Ashrafi, 2009, pp. 98-100).

These processes use the Oregon model of the visioning technique used. “The design process generally has four steps: problem definition, ideation, implementation, and evaluation” (Motloch, 2000, p. 288). The design process goes through four main phases: briefing, analyzing, synthesizing, followed by evaluating and deciding (Eissa, 2019, p. 5). The design steps include cognizing (identification, adjustment, modification, and applied information), ideation, and presentation (selection, evaluation, monitoring, and construction) (Mahmoodi & Bastani, 2018). The process of designing an urban space includes these steps: selecting the design team, explaining the goals, collecting and organizing information, analyzing information, policy-making and presenting the design strategy, providing options, presenting the optimal design, ratifying, and implementing the plan (Pakzad, 2012, p. 156). Monitoring and evaluation are also necessary for strategic planning and management because the process is open-ended and includes several iterative loops (Wong et al., 2006, p. 26).

In addition to Strategic Urban Design Process, examples of strategic processes were searched in the strategic planning and management of the city. Many have researched strategic planning in improving the life quality of urban settlements or even in tourism management. It may be similar in large plans but may take different forms in different contexts (De Graaf & Dewulf, 2010, p. 144; Wang et al., 2006). Today, the strategic planning framework for action in the medium and in the long term is considered as a short-term project with a comprehensive and strategic vision (Salafranca Vázquez et al., 2014, p. 144), aiming to ensure long-term achievement of goals (Kühn & Grünig, 2001, p. 8). Scanning internal and external factors and the environment is a critical part of the strategic planning process. In the design process, a set of analysis methods provides a scientific basis for specified strategies. David (2013) identified the factors threatening the organization in the external environment or when creating opportunities. He also interpreted the internal strengths and weaknesses of the organization as a factor for evaluating and selecting the strategies (David, 2013, p. 63; De Graaf & Dewulf, 2010, p. 472; Wang et al., 2006, p. 337). In the strategic planning process, John Bryson also identifies opportunities, threats, strengths, and weaknesses as input and strategy-making issues. Duffy's model also introduces the opportunities and threat factors of the environment and analyzes the strengths and weaknesses of internal factors in the pre-strategy step (Moradi Masihi, 2002). Figure 2 shows the strategic urban design steps with connections.

Figure (2)

**1.3.3. Cognizing**

According to Baruch Spinoza, cognizing is divided into complete and incomplete ones for removing from issues the veil of ambiguity (Abdullahi et al., 2012, p. 51) Brandimonte considers it the activity of understanding, perceiving, organizing, and using knowledge (Brandimonte et al., 2006, p. 3). Receiving information, categorizing, integrating, tagging, storing, and retrieving are the steps in the recognizing process (Pakzad & Bozorg, 2014, p. 61). The steps of the cognizing process in the dialectical materialism approach include feeling, intellection, action, and experience. Psychological processes of cognizing are a reminder, communication, classification, symbolism, imagination, problem-solving, and dreaming (Sobhani Tabrizi, 1982, pp. 17,18). The psychological definition of cognizing involves learning, systematic organizing, storing, and implementing mental information ((Pakzad & Bozorg, 2014, p. 31). The cognitive process sometimes seeks to solve a problem (Solo, 2002, as cited in (Javadi & Noormohamadzad, 2017).

Some activities are involved at each step of the cognizing function. The purpose of this step is to understand the existing problems and find solutions. Cognizing at the level of description is a set of signs and propositions trying to convey the "what" of something (Malekian, 2001, p. 276). Figure (3) shows the cognizing step. In the process of formulating and implementing a "city development strategy," instead of cognizing the content of the current situation assessment, including 1) collecting information, baseline, and auditing resources; 2) assessing the city situation and its unique features; 3) checking the external environment and reconnoiter the factors causing the change (Golkar & Azadi, 2005, p. 13).

Figure (3)

Cognizing is one of the SUDP steps. It also occurs during a process in which the inputs are taken from the city's super system. They include concepts, dimensions, components, adjectives, properties, traits, characteristics, propositions, and expressions. Outputs are provided by applying the cognitive function. The outputs of cognitive processes are healthy links, the problem, difficulties, sources, deficiencies, absences, surpluses, obstacles, restrictions, concepts, dimensions, components, adjectives, species, types, and patterns. This process with sub-function; receiving, imagining, describing, estimating, calculating, identify, recognizing, determining, and validating apply. The establishment of mutual relations between mentioned functions in the environment makes cognizing occur.

**2.3.3 Making way**

Designing involves the problem-solving procedure of applying various known strategies for attaining a defined set of objectives (Casakin & Kreitler, 2011, p. 159). Strategies which called ways in general means methods, customs and rituals or tradition and religion, rule and law (Dehkhoda, 1995, p. 1431). Principle, rules and level. A particular direction, method, or method of doing something or thinking about something (Duckett, 2005, p. 36), a path (such as a set of actions or a chain of events) that leads to or toward a goal, opportunity, ability, a decision, action or possible outcome are other meanings of the way.

The strategy represents the main "possible" paths that bring the plan closer to the goal (Pakzad, 2012, p. 171). Through the way, actual or potential movement is possible (Lynch, 1964, p. 90). The ways are known to have directions and respond to external threats and situations and internal strengths and weaknesses to achieve sustainable competitive advantage.

A way is needed to achieve coordination between the external environment of organizations and their internal capabilities. Strategy-making is a process that involves the whole organization (Nonaka, 1988 cited in (Hart & Banbury, 1994, p. 253). The strategy-making process requires a complex coordination pattern between many diverse sources (Hart & Banbury, 1994, p. 253). Strategies determine the path from the current situation to the desired situation, and from the macro to the micro-level, try to determine the task in practice. Making the way is one of the steps of the SUDP. It happens when the function, problem, difficulties, deficiencies, absences, surpluses, sources as outputs are taken from the cognizing step and placed as inputs in the making way (strategy making) step. After applying the making way function, and the ways offer as outputs. Figure 4 shows the general process of this function. Ways present on three-level: strategy, approach, and solution.

The problem, difficulties, deficiencies, absences, surpluses, sources of the city's super-system, which are internal (objective and subjective) and external (objective and subjective), taken from the cognizing step to be included inputs of making way step in designing process. The multiplicity of problems in the city's super-system makes it impossible to answer all of them with the available and even accessible sources. Therefore, it is necessary to prioritize, list, and present problems and Difficulties to solve them based on the sources. Necessity, time, sources are the criteria for prioritization. Prioritized problems listed and presented with priority. These problems need to be addressed, solved, or remedied. This prepares a way. It is necessary to form a source intersection matrix to do this.

In the strategic planning model of Violin & Hanger (2001), after evaluating the external and internal factors, the formulation of the strategy is also mentioned. It can also make with the strategy formulation model (A Howard policy known as SWOT). External and internal resources are the cognizing outputs that use in the process of making way as inputs. Sources are strengths, weaknesses, opportunities, and threats. Strengths, weaknesses, opportunities, and threats are recorded and intersected in tabular rows and columns to form a sources (external and internal) intersection matrix. This matrix is made in four ways, SO-WO-ST-WT (Anderson et al., 1989). This matrix is a tool for making way and not answering the problems. According to the problem structure in the mentioned intersections, the listed problems can be solved and obviated through the ways. The building is one of the steps in the SUDP. Figure 4 shows “Making Way” step with its inputs & outputs.

Figure (4)

**4. Material and methods**

**4.1. Research background**

The roots of explanation as a notion traced back to ancient Greece, and even Plato's theory explained by both a systematic explanation of things, objects, and theory of nature (Ruben, 1992, p.45 cited in (Sadeghi Aliabadi, 2013). From Aristotle's view, the object explanation means knowing the first cause, responsible for the object identity (Ghavam Safari, 2008, p. 108). The Hempel explanation model does not refer to the concepts of cause and effect and covers a broader range (Von Wright, 2004, p. 15), and is considered logical reasoning (Sadeghi, 2012, p. 4). This model is usually expressed in the philosophy of positivist science as the regularity or uniformity of phenomena, that is, the characteristics that appear in objects, their states, or the occurring events (Von Wright, 2004, p. 18). Hempel has accepted the explanation as a kind of reasoning.

Several studies have used the term explanation and introduced various models. Three studies have addressed the explanatory function: Islami and Ekvan (2019) explained the relationship between the soul and spirit and the perception theory, following the desire' currents toward the center (in the function of the body) and centrifugal (in the function of the soul). That is the intersection where the two create an actual perception (Islami & Ekwan, 2019). Sharifi Kondari (2016) discussed the rational explanation of the miracle and concluded that miracles do not violate the law of causality and that its truth cannot be explained by experimental science (Sharifi Kondari, 2016). Another relevant research was "Explaining the Components of Identity in the Structure of the Historical Complex of Yazd" by (NourMohammadzad & Javadi, 2016)

In addition, Alikaei & Aminzadeh Goharrizi (2022) explained the concepts of urban design and found that it is a recurring cycle based on the steps of visioning, assessing the situation, formulating goals, formulating policies and design options, evaluating options, designing, implementing, and monitoring after implementation. The realization of the indicators of participatory concepts and consensus between competing discourses at different levels of power has affected the steps of the urban design process. It has also led to an improvement in the scores of the criteria of problem orientation, contextualization, flexibility, and multi-level intervention (Alikaei & Aminzadeh Goharrizi, 2022). Therefore, this research has emphasized the steps of the process and the factors affecting it, and the concept of explanation has not been applied correctly. In another study, earlier in 2018, they also examined the content and procedural developments of the design process, and the results showed that in a multi-level process, decision-making takes place in a way that always considers the relationship with the whole on the one hand and the relationship with the smaller components on the other in the steps of recognition, analysis, and prescription (alikaei & Amin Zadeh Gohar Rizi, 2019). Based on the criticism made on the “cognition” step in the need to pay attention to human individuality, Al-Hesabi and Shariat Madari (2013) arrived at a cognitive-analytical model that is close to the actor’s understanding of the city and the experience gained from his life (Ali-Hebasi & Shariatmadari, 2013). Various processes have been investigated and presented in urban design; however, few researchers have presented a thorough discussion about their explanation. It seems essential to explain the relationship between the two steps in the design process. In the case of SUDP "cognizing" and "making way" have chosen as samples. This study is a discussion explaining the "cognizing" and "making way" steps in the SUDP, which requires a distinct framework. Therefore, after discussions on the framework and theoretical foundations to explain the SUDP, it is now possible to explain the occurrence mechanism of "cognizing" and "making way" (strategy-making) steps in this process.

The present research falls into the category of applied research. This research is a review and has attempted to explain how to establish the relationship between the two steps of "cognizing" and "making way" in strategic urban design through a review. It has been advanced with the analytical method and research strategy of logical reasoning. Logical reasoning is advanced by moving from premises to conclusions. In the process of reasoning, the mind establishes a precise connection between several propositions or sentences and obtains the results from their connection (Kockelmans, 1985; Mirjani, 2011). The process of conducting research in accordance with logical reasoning is shown in the diagram below. Thus, in the first quarter, an in-depth and library review of the main concepts and keywords of the research was conducted. After achieving the conceptual framework of explaining and the theory of the universal law in the discussion of explanation, the components of explanation were determined. These components include; a) the sentence providing the explanation (explanans) (rules) and b) the sentence requiring explanation (explanandum). Paying attention to the general process theory, which refers to the set of interrelated functions with outputs, was important in the strategic urban design process as a law. In examining the strategic urban design process, the general theoretical model of the functions of "cognizing" and "making way" (two steps of the strategic urban design process) was also refined by reviewing library resources. Finally, by considering logical reasoning and process theory and the deductive-legal model, the explanatory, logical deductive and explanatory-seeking were expressed at each level of the relationship between the two functions, and the explained propositions for each level and the relationships between the sub-functions were presented.

Figure (5)

**5. Result & Discussion**

**5-1. Explanation of cognizing and Making way**

Cognizing and Making way are functions in two steps of the SUDP. These two functions are established by receiving outputs from one and use them as inputs in mutual relation. In this study, the relations between cognizing and making way consider. The flow between these two functions is information. In this way, as information flows between them, their relations become existing. A mechanism with the explanation process establishes these relations. Explanation means explaining the mechanism of establishing the relations between cognizing and making way (Figure 6). The explaining statement calls the explanation provider (explanans), and the sentence that expresses the event that needs to be explained calls the explanandum sentence.

As mentioned, with the function of cognizing, healthy links, the problem, difficulties, sources, deficiencies, absences, surpluses, obstacles, restrictions, concepts, dimensions, components, adjectives, traits, features, characteristics, species, types, and patterns are presented. These outputs are used as inputs at various steps of the city design process. They are pieces of information transferred from the cognizing step to other steps of the SUDP. Making way is another step in the SUDP. It derives its inputs from previous steps, including the cognizing step. Problem, Difficulties, Deficiencies, Absences, Surpluses, Sources are inputs cognizing. They are the information received in making way step so that, by applying this function, the ways (output) provide. In this way, the relations between the two cognitive and the making way function’s existence are found. This relation is one of the functional relation types in the design process. The general law used in explanation is the general law of process, which implies the interdependence of the process steps and the necessity of using the cognizing outputs as making way inputs. The Mechanism model of the relations between “Cognizing” and “Making Way” steps in the SUDP displayed in Figure (6). According to figure 6 Table (3) show the explanation of cognizing by making a way in the CSDP.

Figure (6)

Figure (7)

Table (3)

**6. Conclusion**

Cognizing and making the way are two steps of the Strategic Urban Design Process. Upon receiving the input from the city's super-system and applying the cognizing function, outputs were offered, which contained information (data, knowledge, and insight) about the above system and links, problems, difficulties, sources, deficiencies, absences, surpluses, obstacles, restrictions, concepts, dimensions, components, adjectives, species, types, and patterns are the outputs.

Explaining, knowing the relationship with the way of making, was the mechanism of establishing the relationship between the two, conducted based on the general process theory using the logical reasoning method. Deductive-legal model followed the process of explanation then the propositions were explained and presented. The city's strategic planning process is in the level of design method and can be explained by other interventions, such as planning, management, organization, and development. These cross-explanations will be at the method level. Cognizing and way-making can explain a Strategic Urban Design Process. Explaining the relationship between the city's strategic design methods is cross-sectional at the method level. The relationship between cognizing and making way and other designing methods can also be explained at the level of design procedures.

Explanations at the level of procedures are transverse explanations at the level of procedures. In response to the first research question, how is the relationship between “Cognizing” and “Making Way” established? It should be noted that (Figure 5). And in response to the second research question, how are the micro-functions and different levels of this relationship explained? It can also be said that receiving, imagining, describing, estimating, calculating, identify, recognizing, determining, and validating apply are the micro-functions of “Cognizing” and are explained according to Table 3, line 20. The “Making Way” is also explained by Prioritize Problem, Difficulties, Deficiencies, Absences, Surpluses, Sources and Formation of sources intersection matrix according to Table 3, line 21. In addition, one aspect of the city's strategic design function can be explained at different levels of the method, manner, and procedure. Longitudinal and transverse explanations are explanations that can be made based on the theory of illumination. Longitudinal and transverse explanations confirm the coherence and totality of the components of a whole and their state of dynamic equilibrium and their controlled developments (steps of the city strategic planning process) as expressed by the little. Explaining the mechanism of establishing the relationships between different steps in the strategic urban design process based on logical arguments reinforces urban design and if city designers are not intimidated by the scope and volume of work before or during designing, and instead, thinks of the mechanism for establishing relationships between the steps in the design process as described, new windows and horizons toward designing will open before them.

The same can be done for other city design methods, such as comprehensive design, problem-solving, deductive, inductive, collaborative, participatory, and systemic. The issues raised about explaining cognition and way-making are merely different beginnings from the common themes of the Strategic Urban Design Process. The fact that the explanation of the process and its steps need to be based on general laws, principles, and theories (s) raises the question: how can designs that are not prepared and presented based on these cases be accepted? However, despite significant advances in the field of processes, there seems to be much-unspoken debate. The process of designing a city strategy consists of a network (s) of cause and effect relationships that are in dire need of substantive discussion. The time-consuming task of monitoring the outputs of numerous small projects does not align well with the hurried approach that urban managers often take when compiling studies and conducting urban research. Furthermore, the lack of proper documentation in these projects makes it challenging to identify their results.. In designing the strategy of the city, the process, the cause of the product, and many other factors can be considered. Paying attention to these factors in any process will improve performance.

Future research could address the following:

• Explaining the process in examples of strategic urban design processes conducted in Iran

• Identifying the implementation challenges of the strategic urban design process

• Developing the relationship between other functions in the strategic urban design process

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