Influential Article Review - Using Organizational Design in Improving Structure and Coordination

Sara Watts

Tim Burgess

Pete Rodriquez

This paper examines organizational design. We present insights from a highly influential paper. Here are the highlights from this paper: Organization design is a major factor determining an organization's performance and how the people work together in these organizations. In the paper, we argue that designing organizations should be scientific-based and forward-looking. This raises challenges in designing organizations in contexts and situations that are new and have not been seen before. Experimentation of what is and what might be is the basis for exploring and examining what makes a good science for organizational design. Experimentation permits us to examine what might be for organization designs, which are not well understood or may not exist yet. Collaborative communities, new ventures, agile organizations, and temporary organizations are examples; experimentation permits us explore and examine what is and what might be and to examine the organizational design problem and perform experiments to understand the relationship between structure and coordination mechanisms of information, communications, decisions, trust, and incentives—the basis for the multi-contingency theory of organizational design. An organizational design must specify the fit between the structure of division of tasks in the organization with its coordination, or how to make these tasks work in concert. These tasks can be interdependent and uncertain. To design good organizations, we need empirical evidence about what is and exploration about what might be; we need a good theoretical basis for being able to generalize our knowledge. To illustrate our point, we examine two experiments on the classic M-form hypothesis—a computer simulation that examines coordination, organization structure, and interdependency and a laboratory experiment that examines the effect of incentives on opportunism and performance. Together, we find that the M-form is a robust organizational design, but with contingent conditions. Finally, we discuss how observation and experimentation together is the foundation for the development of scientific-based theory of organizational design. For our overseas readers, we then present the insights from this paper in Spanish, French, Portuguese, and German.

SUMMARY

- Information processing is work in modern organizations: «Who talks to whom about what, who makes which decisions based upon what information» . Simon is more succinct: Organizational design «is to investigate the information flows that are essential for accomplishing the organization's objectives, then examine what these information patterns imply for organization

structure.» A basic theory of organization design is balancing the information-processing capacity of the organization with the information-processing demand . Underlying the theory is the assumption that «the greater the task uncertainty, the greater information-processing demands by decision makers» . Further, the more interdependency between the sub-tasks, the more information-processing capacity is needed. Uncertainty and interdependency create the need for information processing in an organization.

- Uncertainty has been defined as an incomplete description of the world , unpredictability, or perhaps more precisely as Knightian uncertainty where the probability distribution is not well defined. Further, uncertainty has included complexity or the number of variables in the environmental space .
- The division of labor is quite as important in organizing decision making as in organizing production. From the information-processing point of view, division of labor means factoring the total system of decisions that need to be made into relatively independent subsystems, each one of which can be designed with only minimal concern for its interactions with the others. The division is necessary because the processors that are available to organizations, whether humans or computers, are very limited in their processing capacity in comparison with the magnitude of the decision problems that organizations face.
- How should the big task be structured or partitioned, and what resources should be allocated to the particular task? For example, deciding between a functional and divisional structure is choosing the basis for breaking up the big task. Then you must choose how many departments or divisions you would like to have. For the divisional structure, you can choose to allocate private customers to one division and corporate customers to another, or you can base your decisions on types of products.

HIGHLY INFLUENTIAL ARTICLE

We used the following article as a basis of our evaluation:

Burton, R. M., & Obel, B. (2018). The science of organizational design: fit between structure and coordination. Journal of Organization Design, 7(1), 1–13.

This is the link to the publisher's website:
https://jorgdesign.springeropen.com/articles/10.1186/s41469-018-0029-2

INTRODUCTION

The design of an organization has a significant impact on the performance of the organization (Doty et al. 1993). Thus, it is important to know how a particular organization should be designed. Van de Ven et al. 2013 state: "Much has been learned, and even more needs to be learned, about designing organizations and institutions." Further, they urge scholars to return to the frontier of organization studies by addressing a new agenda in designing organizations with promising new research methods. Levitt (2012) suggests that future research on organization design extends the frontiers of organizational micro-contingency theory. Gulati et al. (2012), on the other hand, suggest a focus on meta-organization design where organizational design is looked upon in an inter-organizational and community context.

Do we have scientifically based knowledge that can help us design efficient and effective organizations for the future, and is there a science of organizational design? At first, it may seem that science and design are opposites and that the two are not compatible. Science is the intellectual and practical activity encompassing the systematic study of the structure and behavior of the physical and natural world through observation and experiment, while design is a plan or drawing produced to show the look and function or workings of a building, garment, organization, or other object before it is made.

In this paper, we will discuss and present a science of organizational design, including a discussion of models and theories of designing organizations. We argue that experimentation of what is and what might be is the link between science and design for a science of organizational design (Burton and Obel 2011). We may address the issue of designing organizations by invoking new research methods and new ways of imagining possibilities. However, we should also employ our current knowledge to design new organizations for new conditions. The use of experimentation based on our current knowledge is the way to move forward. This is the only way we can generalize existing knowledge to help design organizations for the future.

The paper will also present a methodology perspective of the science of organization design. We will discuss what we have learned from the science of organization design. Building upon Simon's book The Sciences of the Artificial (Simon 1996) and related notions, we develop a science of organizational design where the basic organizational design question is how to create a fit between structure and coordination. Structure is to break a big purpose or problem into smaller problems and units. The result is a set of tasks that have to be performed. The coordination is managing these smaller problems, units, and tasks into a whole so that they fit together to achieve an overall purpose. Finally, we discuss questions, which the science of organization design should address in future research.

CONCLUSION

Design and experimentation are moving ahead as natural experiments that explore a portion of the "what might be" space. We are observing closely for insights and understanding. We need to go further to expand the design space and investigate the underlying mechanisms of structure and coordination through experimentation utilizing lab studies, simulations, field studies, and ethnographies, among other approaches. Romme (2003: 558) stated that the "idea of a design involves inquiry into systems that do not yet exist—either complete new systems or new states of existing systems." Experimentation is at the heart of the science of organizational design.

Without a science of organizational design, we cannot generalize and use our accumulated knowledge to be able to design effective and efficient organizations that serve their purposes well.

REFERENCES

Arrow K (1974) The limits of organization. W. W. Norton, Ne
Ashby WR (1956) An introduction to cybernetics. Chapman and Hall, London
Burton RM, Håkonsson DD, Nickerson J, Puranam P, Workiewicz M, Zenger T (2017) GitHub: exploring the space between boss-less and hierarchical forms of organizing. J Organ Des 6(1):10
Burton RM, Obel B (1980a) The efficiency of the price, budget, and mixed approaches under varying a priori information levels for decentralized planning. Manag Sci 26(4):401–417
Burton RM, Obel B (1980b) A computer simulation test of the M-form hypothesis. Adm Sci Q 25(3):457–466
Burton RM, Obel B (1984) Designing efficient organizations: modelling and experimentation. North Holland, Amsterdam, p 224
Burton RM, Obel B (1988) Opportunism, incentives, and the M-form hypothesis: a laboratory study. J Econ Behav Organ 10:99–119
Burton RM, Obel B (1995) The validity of computational models in organization science: from model realism to purpose of the model. Comput Math Organ Theory 1(1):57–71
Burton RM, Obel B (2004) Strategic organizational diagnosis and design: developing theory for application, 2nd edn. Kluwer Academic Publishers, Boston
Burton RM, Obel B (2011) Computational modeling for what-is, what-might-be, and what-should-be studies—and triangulation. Organ Sci 22(5):1195–1202
Burton RM, Obel B (2013) Design rules for dynamic organization design. In: Grandori A (ed) Handbook of economic organization. Edward Elgar Publishing, Northamptoen, pp 223–224

Burton RM, Obel B, DeSanctis G (2011) Organizational design: a step-by-step approach, 2nd edn. Cambridge University Press, Cambridge

Burton RM, Obel B, Håkonsson D (2015) Organizational design: a step-by-step approach, 3rd edn. Cambridge University Press, Cambridge

Burton RM, Obel B, Lauridsen J (2002) Return on assets loss from situational and contingency misfits. Manag Sci 48(11):1461–1485

Burton RM, Obel B, Lauridsen J (2004) The impact of organizational climate and strategic fit on firm performance. Hum Resour Manag 43(1):67–82

Chandler A (1962) Strategy and structure. MIT Press, Cambridge

Davis JP, Eisenhardt KM, Bingham CB (2007) Developing theory through simulation methods. Acad Manag Rev 32(2):480–499

Doty DH, Glick WH, Huber GP (1993) Fit, equifinality, and organizational effectiveness: a test of two configurational theories. Acad Manag J 36(6):1196–1250

Fjeldstad ØD, Snow CC, Miles RE, Lettl C (2012) The architecture of collaboration. Strateg Manag J 33(6):734–775

Foss NJ, Weber L (2016) Moving opportunism to the back seat: bounded rationality, costly conflict, and hierarchical forms. Acad Manag Rev 41(1):61–79

Gaba V, Joseph J (2013) Corporate structure and performance feedback: aspirations and adaptation in M-form firms. Organ Sci 24(4):1102–1119

Galbraith JR (1973) Designing complex organizations. Addison-Wesley Longman, Boston

Galbraith JR (1974) Organization design: an information processing view. Interfaces 4(3):28–37

Gulati R, Puranam P, Tushman M (2012) Meta-organization design: rethinking design in interorganizational and community contexts. Strateg Manag J 33(6):571–586

Håkonsson DD, Burton R, Obel B, Lauridsen J (2008) How failure to align climate and leadership style affects performance. Manag Decis 46(3):406–432

Håkonsson DD, Burton RM, Obel B, Lauridsen J (2012) Strategy implementation requires the right executive style: evidence from Danish SMEs. Long Range Plan 45(2–3):182–208

Håkonsson DD, Eskildsen JK, Argote L, Mønster D, Burton RM, Obel B (2016) Exploration versus exploitation: emotions and performance as antecedents and consequences of team decisions. Strateg Manag J 37(6):985–1001

Harrison JR, Lin Z, Carroll GR, Carley KM (2007) Simulation modeling in organizational and management research. Acad Manag Rev 32(4):1229–1245

Haußmann C, Dwivedi YK, Venkitachalam K, Williams MD (2012) A summery and review of Galbraith's organizational information processing theory. In: Dwivedi YK, Wade MR, Schneberger SL (eds) Information systems theory: explaining and predicting our digital society, vol vol. 2. Springer, New York, pp 71–93

Klaas P (2004) Towards a concept of dynamic fit in contingency theory. In: Proceedings of the 2004 System Dynamics Conference, pp 25–29

Klahr D, Kotovsky K (eds) (2013) Complex information processing: the impact of Herbert A. Simon. Psychology Press, Hove

Lave CA, March JG (1975) An introduction to models in the social sciences. Harper & Row, New York

Lawrence PR, Lorsch JW (1967) Organization and environment. Irwin, Homewood

Lee GH, Bae JW, Oh N, Hong JH, Moon IC (2015) Simulation experiment of disaster response organizational structures with alternative optimization techniques. Soc Sci Comput Rev 33(3):343–371

Levinthal, D. A., M. Workiewicz, and C. Pontoise. When two bosses are better than one: decomposable systems and organizational adaptation. Working paper (2017)

Levitt RE (2012) The virtual design team: designing project organizations as engineers design bridges. J Organ Des 1(2):14–41

Levitt RE, Thomsen J, Christiansen TR, Kunz JC, Jin Y, Nass C (1999) Simulating project work processes and organizations: toward a micro-contingency theory of organizational design. Manag Sci 45(11):1479–1495

Lomi A, Larsen ER, Ginsberg A (1997) Adaptive learning in organizations: a system dynamics-based exploration. J Manag 23(4):561–582

Marschak J, Radner R (1972) Economic theory of teams. Yale University Press, New Haven

Miles R, Snow C (1978) Organizational strategy, structure, and process. McGraw-Hill, New York

Puranam P (2012) A future for the science of organization design. J Organ Des 1(1):18–19

Puranam P, Alexy O, Reitzig M (2014) What's "new" about new forms of organizing? Acad Manag Rev 39(2):162–180

Puranam P, Håkonsson DD (2015) Valve's way. J Organ Des 4(2):2–4

Rivkin JW, Siggelkow N (2003) Balancing search and stability: interdependencies among elements of organizational design. Manag Sci 49(3):290–311

Romme AGL (2003) Making a difference: organization as design. Organ Sci 14(5):558–573

Scandura TA, Williams EA (2000) Research methodology in management: current practices, trends, and implications for future research. Acad Manag J 43(6):1248–1264

Shiffrin RM, Schneider W (1977) Controlled and automatic human information processing: II. Perceptual learning, automatic attending and a general theory. Psychol Rev 84(2):127

Simon HA (1947) Administrative behavior: a study of decision-making process in administrative organization. Free Press, New York, p 259

Simon HA (1967) The business school a problem in organizational design. J Manag Stud 4(1):1–16

Simon HA (1996) The sciences of the artificial, 3rd edn. MIT Press, Cambridge

Steer PS, Cable JR (1978) Internal organization and profit: an empirical analysis of large UK companies. J Ind Econ 27(1):13–30

Thompson JD (1967) Organizations in action. Oxford University Press, Oxford

Tushman ML, Nadler DA (1978) Information processing as an integrating concept in organizational design. Acad Manag Rev 3(3):613–624

Van de Ven AH, Delbecq AL, Koenig R Jr (1976) Determinants of coordination modes within organizations. Am Sociol Rev 41(2):322–338

Van de Ven AH, Ganco M, Hinings CB (2013) Returning to the frontier of contingency theory of organizational and institutional designs. Acad Manag Ann 7(1):393–440

Van Zandt T (1999) Real-time decentralized information processing as a model of organizations with boundedly rational agents. Rev Econ Stud 66(3):633–658

Williamson OE (1975) Markets and hierarchies: analysis and antitrust implications. The Free Press, New York

Woodward J (1965) Industrial organization: theory and practice. Oxford University Press, Oxford

TRANSLATED VERSION: SPANISH

Below is a rough translation of the insights presented above. This was done to give a general understanding of the ideas presented in the paper. Please excuse any grammatical mistakes and do not hold the original authors responsible for these mistakes.

VERSION TRADUCIDA: ESPAÑOL

A continuación se muestra una traducción aproximada de las ideas presentadas anteriormente. Esto se hizo para dar una comprensión general de las ideas presentadas en el documento. Por favor, disculpe cualquier error gramatical y no responsabilite a los autores originales de estos errores.

INTRODUCCIÓN

El diseño de una organización tiene un impacto significativo en el desempeño de la organización (Doty et al. 1993). Por lo tanto, es importante saber cómo se debe diseñar una organización en particular. 2013 afirma: "Se ha aprendido mucho, y aún hay que aprender más, sobre el diseño de organizaciones e instituciones". Además, instan a los académicos a regresar a la frontera de los estudios de organización abordando una nueva agenda en el diseño de organizaciones con nuevos métodos de investigación prometedores. Levitt (2012) sugiere que la investigación futura sobre el diseño de la organización extiende las fronteras de la teoría de la micro-contingencia organizacional. (2012), por otro lado, sugieren un enfoque en el diseño de la meta-organización donde el diseño organizacional se considera en un contexto inter-organizativo y comunitario.

¿Tenemos conocimientos basados científicamente que puedan ayudarnos a diseñar organizaciones eficientes y eficaces para el futuro, y existe una ciencia del diseño organizacional? Al principio, puede parecer que la ciencia y el diseño son opuestos y que los dos no son compatibles. La ciencia es la actividad intelectual y práctica que abarca el estudio sistemático de la estructura y el comportamiento del mundo físico y natural a través de la observación y el experimento, mientras que el diseño es un plan o dibujo producido para mostrar el aspecto y la función o el funcionamiento de un edificio, prenda, organización u otro objeto antes de que se haga.

En este documento, discutiremos y presentaremos una ciencia del diseño organizacional, incluyendo una discusión de modelos y teorías de diseño de organizaciones. Argumentamos que la experimentación de lo que es y lo que podría ser es el vínculo entre la ciencia y el diseño para una ciencia del diseño organizacional (Burton y Obel 2011). Podemos abordar el tema del diseño de organizaciones invocando nuevos métodos de investigación y nuevas formas de imaginar posibilidades. Sin embargo, también debemos emplear nuestros conocimientos actuales para diseñar nuevas organizaciones para nuevas condiciones. El uso de la experimentación basada en nuestro conocimiento actual es la manera de avanzar. Esta es la única manera en que podemos generalizar los conocimientos existentes para ayudar a diseñar organizaciones para el futuro.

El documento también presentará una perspectiva metodica de la ciencia del diseño de la organización. Discutiremos lo que hemos aprendido de la ciencia del diseño de organizaciones. Basándonos en el libro de Simon Las Ciencias de lo Artificial (Simon 1996) y nociones relacionadas, desarrollamos una ciencia del diseño organizacional donde la cuestión básica del diseño organizacional es cómo crear un ajuste entre la estructura y la coordinación. La estructura es romper un gran propósito o problema en problemas y unidades más pequeñas. El resultado es un conjunto de tareas que se deben realizar. La coordinación consiste en gestionar estos problemas, unidades y tareas más pequeños en un todo para que encajen juntos para lograr un propósito general. Por último, discutimos cuestiones que la ciencia del diseño de la organización debe abordar en futuras investigaciones.

CONCLUSIÓN

El diseño y la experimentación avanzan como experimentos naturales que exploran una parte del espacio "lo que podría ser". Estamos observando atentamente las ideas y la comprensión. Tenemos que ir más allá para ampliar el espacio de diseño e investigar los mecanismos subyacentes de estructura y coordinación a través de la experimentación utilizando estudios de laboratorio, simulaciones, estudios de campo, y etnografías, entre otros enfoques. Romme (2003: 558) declaró que la "idea de un diseño implica una investigación sobre sistemas que aún no existen, ya sea nuevos sistemas completos o nuevos estados de los sistemas existentes". La experimentación está en el corazón de la ciencia del diseño organizacional.

Sin una ciencia del diseño organizacional, no podemos generalizar y utilizar nuestros conocimientos acumulados para poder diseñar organizaciones eficaces y eficientes que sirvan bien a sus propósitos.

VERSION TRADUITE: FRANÇAIS

Voici une traduction approximative des idées présentées ci-dessus. Cela a été fait pour donner une compréhension générale des idées présentées dans le document. Veuillez excuser toutes les erreurs grammaticales et ne pas tenir les auteurs originaux responsables de ces erreurs.

INTRODUCTION

La conception d'une organisation a une incidence importante sur le rendement de l'organisation (Doty et coll., 1993). Il est donc important de savoir comment une organisation particulière devrait être conçue. Van de Ven et coll. 2013 déclarent : « Beaucoup a été appris, et encore plus il faut en apprendre, sur la conception d'organisations et d'institutions. » En outre, ils exhortent les chercheurs à revenir à la frontière des études organisationnelles en s'attaquant à un nouveau programme de conception d'organisations avec de nouvelles méthodes de recherche prometteuses. Levitt (2012) suggère que les futures recherches sur la conception d'organisations prolongent les frontières de la théorie de la micro-contingence organisationnelle. Gulati et coll. (2012), d'autre part, suggèrent de mettre l'accent sur la conception de méta-organisation où la conception organisationnelle est considérée dans un contexte interorganisationnel et communautaire.

Avons-nous des connaissances scientifiquement fondées qui peuvent nous aider à concevoir des organisations efficaces et efficientes pour l'avenir, et y a-t-il une science de la conception organisationnelle? Au début, il peut sembler que la science et le design sont opposés et que les deux ne sont pas compatibles. La science est l'activité intellectuelle et pratique qui englobe l'étude systématique de la structure et du comportement du monde physique et naturel par l'observation et l'expérimentation, tandis que la conception est un plan ou un dessin produit pour montrer l'apparence et la fonction ou le fonctionnement d'un bâtiment, un vêtement, une organisation, ou tout autre objet avant qu'il ne soit fait.

Dans ce document, nous discuterons et présenterons une science de la conception organisationnelle, y compris une discussion sur les modèles et les théories de la conception d'organisations. Nous soutenons que l'expérimentation de ce qui est et ce qui pourrait être est le lien entre la science et la conception pour une science de la conception organisationnelle (Burton et Obel 2011). Nous pouvons aborder la question de la conception d'organisations en invoquant de nouvelles méthodes de recherche et de nouvelles façons d'imaginer les possibilités. Cependant, nous devrions également utiliser nos connaissances actuelles pour concevoir de nouvelles organisations pour de nouvelles conditions. L'utilisation de l'expérimentation basée sur nos connaissances actuelles est la façon d'aller de l'avant. C'est la seule façon de généraliser les connaissances existantes pour aider les organisations de conception pour l'avenir.

Le document présentera également une perspective méthodologique de la science de la conception de l'organisation. Nous discuterons de ce que nous avons appris de la science de la conception de l'organisation. S'appuyant sur le livre de Simon Les sciences de l'artificiel (Simon 1996) et les notions connexes, nous développons une science de la conception organisationnelle où la question de conception organisationnelle de base est de savoir comment créer un ajustement entre la structure et la coordination. La structure est de briser un grand but ou un problème en petits problèmes et unités. Le résultat est un ensemble de tâches qui doivent être effectuées. La coordination consiste à gérer ces petits problèmes, unités et tâches dans un ensemble afin qu'ils s'intègrent ensemble pour atteindre un objectif global. Enfin, nous discutons de questions, que la science de la conception de l'organisation devrait aborder dans la recherche future.

CONCLUSION

La conception et l'expérimentation vont de l'avant comme des expériences naturelles qui explorent une partie de l'espace « ce qui pourrait être ». Nous observons de près pour obtenir des idées et de la compréhension. Nous devons aller plus loin pour élargir l'espace de conception et étudier les mécanismes sous-jacents de la structure et de la coordination par l'expérimentation en utilisant des études de laboratoire, des simulations, des études sur le terrain, et des ethnographies, entre autres approches. Romme (2003 : 558) a déclaré que « l'idée d'une conception implique une enquête sur des systèmes qui n'existent pas encore — soit de nouveaux systèmes complets, soit de nouveaux états de systèmes existants ». L'expérimentation est au cœur de la science de la conception organisationnelle.

Sans une science de la conception organisationnelle, nous ne pouvons pas généraliser et utiliser nos connaissances accumulées pour être en mesure de concevoir des organisations efficaces et efficaces qui servent bien leurs objectifs.

TRANSLATED VERSION: GERMAN

Below is a rough translation of the insights presented above. This was done to give a general understanding of the ideas presented in the paper. Please excuse any grammatical mistakes and do not hold the original authors responsible for these mistakes.

ÜBERSETZTE VERSION: DEUTSCH

Hier ist eine ungefähre Übersetzung der oben vorgestellten Ideen. Dies wurde getan, um ein allgemeines Verständnis der in dem Dokument vorgestellten Ideen zu vermitteln. Bitte entschuldigen Sie alle grammatikalischen Fehler und machen Sie die ursprünglichen Autoren nicht für diese Fehler verantwortlich.

EINLEITUNG

Der Entwurf einer Organisation hat einen erheblichen Einfluss auf die Leistung der Organisation (Doty et al. 1993). Daher ist es wichtig zu wissen, wie eine bestimmte Organisation gestaltet werden sollte. Van de Ven et al. 2013 erklären: "Es wurde viel gelernt, und es muss noch mehr über die Gestaltung von Organisationen und Institutionen gelernt werden." Darüber hinaus fordern sie die Gelehrten auf, an die Grenze des Organisationsstudiums zurückzukehren, indem sie eine neue Agenda bei der Gestaltung von Organisationen mit vielversprechenden neuen Forschungsmethoden angehen. Levitt (2012) schlägt vor, dass zukünftige Forschungen über Organisationsdesign die Grenzen der organisatorischen Mikro-Notfalltheorie erweitern. Gulati et al. (2012) schlagen dagegen einen Fokus auf Meta-Organisationsdesign vor, bei dem Organisationsdesign in einem organisations- und gemeinschaftlichen Kontext betrachtet wird.

Verfügen wir über wissenschaftlich fundiertes Wissen, das uns helfen kann, effiziente und effektive Organisationen für die Zukunft zu entwerfen, und gibt es eine Wissenschaft des Organisationsdesigns? Auf den ersten Blick mag es scheinen, dass Wissenschaft und Design Gegensätze sind und dass beide nicht kompatibel sind. Wissenschaft ist die intellektuelle und praktische Tätigkeit, die die systematische Untersuchung der Struktur und des Verhaltens der physischen und natürlichen Welt durch Beobachtung und Experiment umfasst, während Design ein Plan oder eine Zeichnung ist, die erstellt wurde, um das Aussehen und die Funktion oder Funktionsweise eines Gebäudes, Kleidungsstücks, einer Organisation oder eines anderen Objekts zu zeigen, bevor es gemacht wird.

In diesem Beitrag werden wir eine Wissenschaft des Organisationsdesigns diskutieren und vorstellen, einschließlich einer Diskussion über Modelle und Theorien der Gestaltung von Organisationen. Wir argumentieren, dass das Experimentieren mit dem, was ist und was sein könnte, die Verbindung zwischen Wissenschaft und Design für eine Wissenschaft des Organisationsdesigns ist (Burton und Obel 2011). Wir können das Problem der Gestaltung von Organisationen angehen, indem wir neue Forschungsmethoden

und neue Wege der Vorstellung von Möglichkeiten aufrufen. Wir sollten jedoch auch unser aktuelles Wissen einsetzen, um neue Organisationen für neue Bedingungen zu entwerfen. Die Verwendung von Experimenten auf der Grundlage unseres aktuellen Wissens ist der Weg, um voranzukommen. Nur so können wir vorhandenes Wissen verallgemeinern, um Organisationen für die Zukunft zu gestalten.

Das Papier wird auch eine methodische Perspektive der Wissenschaft der Organisationsgestaltung präsentieren. Wir werden diskutieren, was wir aus der Wissenschaft des Organisationsdesigns gelernt haben. Aufbauend auf Simons Buch The Sciences of the Artificial (Simon 1996) und verwandten Begriffen entwickeln wir eine Wissenschaft des Organisationsdesigns, bei der die grundlegende organisatorische Gestaltungsfrage darin besteht, wie man eine Anpassung zwischen Struktur und Koordination schafft. Struktur ist es, einen großen Zweck oder Problem in kleinere Probleme und Einheiten zu brechen. Das Ergebnis ist eine Reihe von Aufgaben, die ausgeführt werden müssen. Die Koordination verwaltet diese kleineren Probleme, Einheiten und Aufgaben zu einem Ganzen, so dass sie zusammenpassen, um einen Gesamtzweck zu erreichen. Schließlich diskutieren wir Fragen, die die Wissenschaft der Organisationsgestaltung in der zukünftigen Forschung behandeln sollte.

SCHLUSSFOLGERUNG

Design und Experimente kommen als Naturexperimente voran, die einen Teil des "Was könnte" Raum erforschen. Wir beobachten genau nach Einsichten und Verständnis. Wir müssen noch weiter gehen, um den Gestaltungsraum zu erweitern und die zugrunde liegenden Mechanismen der Struktur und Koordination zu untersuchen, indem wir unter anderem Laborstudien, Simulationen, Feldstudien und Ethnographien verwenden. Romme (2003: 558) erklärte, dass die "Idee eines Entwurfs die Untersuchung von Systemen beinhaltet, die noch nicht existieren – entweder komplette neue Systeme oder neue Zustände bestehender Systeme." Experimentieren ist das Herzstück der Wissenschaft des Organisationsdesigns.

Ohne eine Wissenschaft des Organisationsdesigns können wir unser angesammeltes Wissen nicht verallgemeinern und nutzen, um effektive und effiziente Organisationen zu entwerfen, die ihren Zwecken gut dienen.

TRANSLATED VERSION: PORTUGUESE

Below is a rough translation of the insights presented above. This was done to give a general understanding of the ideas presented in the paper. Please excuse any grammatical mistakes and do not hold the original authors responsible for these mistakes.

VERSÃO TRADUZIDA: PORTUGUÊS

Aqui está uma tradução aproximada das ideias acima apresentadas. Isto foi feito para dar uma compreensão geral das ideias apresentadas no documento. Por favor, desculpe todos os erros gramaticais e não responsacule os autores originais responsáveis por estes erros.

INTRODUÇÃO

O design de uma organização tem um impacto significativo no desempenho da organização (Doty et al. 1993). Assim, é importante saber como uma determinada organização deve ser projetada. Van de Ven et al. 2013 afirma: "Muito foi aprendido, e ainda mais precisa de ser aprendido, sobre a conceção de organizações e instituições." Além disso, exortam os estudiosos a regressarem à fronteira dos estudos de organização, abordando uma nova agenda na conceção de organizações com novos métodos de investigação promissores. Levitt (2012) sugere que a investigação futura sobre o design da organização alarga as fronteiras da teoria da micro contingência organizacional. Gulati et al. (2012), por outro lado, sugerem um foco no design de meta-organização onde o design organizacional é olhado num contexto inter-organizacional e comunitário.

Temos conhecimentos cientificamente baseados que nos podem ajudar a projetar organizações eficientes e eficazes para o futuro, e existe uma ciência do design organizacional? No início, pode parecer que a ciência e o design são opostos e que os dois não são compatíveis. A ciência é a atividade intelectual e prática que engloba o estudo sistemático da estrutura e comportamento do mundo físico e natural através da observação e da experiência, enquanto o design é um plano ou desenho produzido para mostrar o aspeto e função ou o funcionamento de um edifício, vestuário, organização ou outro objeto antes de ser feito.

Neste trabalho, discutiremos e apresentaremos uma ciência do design organizacional, incluindo uma discussão de modelos e teorias de projeto de organizações. Argumentamos que a experimentação do que é e o que pode ser é a ligação entre a ciência e o design para uma ciência do design organizacional (Burton e Obel 2011). Podemos abordar a questão da conceção de organizações invocando novos métodos de investigação e novas formas de imaginar possibilidades. No entanto, devemos também empregar os nossos conhecimentos atuais para conceber novas organizações para novas condições. O uso da experimentação com base no nosso conhecimento atual é a maneira de seguir em frente. Esta é a única forma de generalizarmos os conhecimentos existentes para ajudar a projetar organizações para o futuro.

O trabalho apresentará também uma perspetiva metodologia da ciência do design da organização. Discutiremos o que aprendemos com a ciência do design da organização. Com base no livro de Simon The Sciences of the Artificial (Simon 1996) e noções relacionadas, desenvolvemos uma ciência do design organizacional onde a questão básica do design organizacional é como criar um ajuste entre estrutura e coordenação. A estrutura é quebrar um grande propósito ou problema em problemas e unidades menores. O resultado é um conjunto de tarefas que têm de ser executadas. A coordenação está a gerir estes pequenos problemas, unidades e tarefas num todo, de modo a que se encaixem para alcançar um objetivo global. Por último, discutimos questões que a ciência do design da organização deve abordar em futuras investigações.

CONCLUSÃO

O design e a experimentação estão a avançar à medida que experiências naturais exploram uma parte do espaço "o que pode ser". Estamos a observar atentamente a perspicácia e compreensão. Temos de ir mais longe para expandir o espaço de conceção e investigar os mecanismos subjacentes de estrutura e coordenação através da experimentação utilizando estudos laboratoriais, simulações, estudos de campo e etnografias, entre outras abordagens. Romme (2003: 558) afirmou que a "ideia de um projeto envolve a investigação de sistemas que ainda não existem — ou novos sistemas completos ou novos estados dos sistemas existentes". A experimentação está no centro da ciência do design organizacional.

Sem uma ciência de design organizacional, não podemos generalizar e usar o nosso conhecimento acumulado para poder projetar organizações eficazes e eficientes que sirvam bem os seus propósitos.