



# Unearth Faith of Social Contract: The Mediation Effect of Crisis Learning Between Community Leadership and Community Resilience by Analysis through Structural Equation Modeling

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**Abstract.** It is important to learn from skills and pandemic knowledge after COVID, but what is also more important is to learn hidden implications upon social mentality of social commitment during COVID-19. This research paper investigated the correlation between *community resilience* and citizens' *faith of social contract* after the pandemic, by designing a structural equation model with variables *community leadership*, *crisis learning*, *community resilience* and the *faith of social contract*. The samples from online survey conducted around 2024 January for three cities Shanghai, Beijing and Wuhan demonstrated that there were significant positive correlations between the variables *community leadership and community resilience*, yet there were suppress effects for the latter two samples when it comes to quasi-mediation effect between *community leadership to community resilience induced by crisis learning*. It echoed what happened in practice for the three cities in their governance style and lockdown policies during the pandemic crisis.

**Keywords:** Crisis Learning, Faith of Social Contract, Community leadership, Community Resilience, Structural Equation Modeling.

## 1 Introduction

During the past 5 years the world is besieged by the pandemic and the abilities of bouncing back and reviving or even transformation of public emergency systems have attracted attention from academics. Official quarantine order was prevalent in multiple countries but the trend of virus was more unpredictable. How to get used to unexpected lockdown and confronting with hazards became a problem for governments around the globe. It stressed experts and the under-privileged citizens.[1][2][3] A lot of countries reported social policies to contain the pandemic but some inevitably restrained individual rights like social restriction, tracing the spread of virus by epidemic survey and

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instant hospitalization. [4][5][6] The mobilization efficiency exhibited under the stringent social control to contain the pandemic in China was no wonder appealing. Yet, what literatures focused on China anti-pandemic lessons were “rapid recovery” ” exactness of governance” ” contact tracing on infected individuals”, “stringent lock down” ,”civil compliance”[7][8][9][10][11].The vitality of common citizen’s effort as active adaptors and crisis learners were overlooked. What may fill *the gap* is the vitality of crisis learning of citizens confronting with depravity in pandemic and potential ramifications in social mentality. How people take vision of “pandemic crisis” and”normal status” would be beneficial to a reflexive perception of the way they perceive the disaster resilience of themselves and surrounding groups and professions. One part of vision scholars may ignore largely is the faith of social contract, as a cement of social order when disbelief and suspicion were prevalent.

The construct "*Faith of Social Contract*" is coined in this study to formulate the intention of citizens' to generate a new social temporary order by co-production of contract (no matter in paper or not) and use it to reformulate social ties when crisis and deprivation being present. The concept of social contract was famous in western political thought as that of Jean Rousseau or Lock in liberalist political theory, and it is also elaborated in British political theorist Edmund Burke’s idea as "a partnership not only between those who are living, but between those who are living, those who are dead, and those who are to be born." [12]It is especially impressive to see that those in society who engage in sacrifices and devotion like fire fighters, soldiers and doctors devoted kindness and charity by engaging in high risk jobs whose contemporaries may not fully able to pay back but should bare the conscience to guarantee their residual lives and their posterities’ welfare due to *the social contract* binding them in conscience [13][14][15].The social contract then was sustained by the fact that their contribution would be recognized and paid back cross generations or within a generation. This is very significant in cross generation trust and professional commitment.

Similarly, the COVID-19 caused the public and private commitment to professions tested simultaneously during crisis and easily publicize them. Faithful social organizations unleashed their social capital but some corrupted and abused social capital. This corroding of faith in hidden social contract also caused a degradation of family trust, and those professions like doctors and nurses who advised their children not to choose in this career again when they grow up. During such crisis, there may also be self-centered individuals who breach the hidden faith of social contract, and this will publicly destroy faith of social contract. Consider that during COVID the delivery workers who steal the test tube or masks, and doctors or nurses who locked outside from their home for fear of contamination. These are sighs that trust of social contract were prepaid but betrayed. If surveillance system forbidden and punished these behaviors, then the *faith of social contract* was still being recognized and redeemed. If not, then the social contract faith is lost and people will not willing to prepay by noble spirit and the future generations would fail to recognize its importance of its succession [16]. The innate power of *faith of social contract* stemmed from intricate ties looking forward to future civilizations and supporting inter-generational kindness would collapse, finally lead to degradation of public trust of government. [17] Though circumstances happen when enhanced social faith enrich family or ethnical bound to

counteract the broken faith of social contract. But such was not the case in COVID for urban dwellers where resources and social network were still robust enough and the depravity only remain for a short tolerable time. [18][19].

The aim of this research is to investigate the correlation between urban community resilience and citizens' faith of social contract. Since their commitment as individual as learner from crisis and contributor /betrayal of social commitment were spurred by community leadership and crisis learning experiences during the COVID-19 and tested, given the chances to act as disbeliever of social cohesion and being free-riders, or worse, misuse of special belief during crisis. The crisis learning experience exposed the baseline of community during quarantine by placing high level of credibility of obeying the social contract in every one individual. This research would help to reveal how much citizens in the sample cities (Shanghai, Beijing and Wuhan) would learn from pandemic crisis and what it may lead to faith of social contract. The pandemic may heal, but social cohesion was tested and remain yet to heal.

The research paper has 7 sections (1) Introduction (2) Hypotheses and theory model.(3)Research design and method.(4)Results.(5)Discussions.(6)Limitation and contribution.(7)Conclusion of this research.

## 2 Hypotheses and Proposed Model

According to researches the urban communities are not good at community empowerment and citizens are mostly not heeded to community affairs, which may be setbacks to crisis leadership [20]. The communities have to borrow power from outside to deal with daily hazards like theft, minor accident, community conflict over common charge or parking fee. But the COVID-19 experience compel lots of community citizens live in lockdown and citizens have to improvise and coordinate with their community leaders(resident committee, house estate managers, volunteer leaders). Thus posited the Hypothesis (1)*Community leadership* is positively correlated with *community resilience*.

At the first glance, the correlation between urban *community resilience* and *faith of social contract* seems also be positive. Since the robustness a community is during a crisis, the more faithful citizens may commit to social cohesive and recognition toward mutual trust and contribution, and their hard work or sacrifice paid off. However it cannot be ruled out that after reviving from extreme crisis citizens were so stunned by the atrocity that during certain span of time, the positive correlation may be suppressed.[21], which may lead to increase of *community resilience* but decrease of faith of social contract. Besides, the enhancement of resilience may uncover the recklessness and incompetence of certain social groups and endanger the positive correlation.(i.e.embezzlement of mitigation money for medication)[22][23] Yet after all to posit positive reaction may fit the optimistic mainstream urban city situations, thus posited the hypothesis (2) *community resilience* is positively correlated with *faith of social contract*.

It may be apparent that citizens' perception of *crisis learning* induced by community leadership may enhance the urban *community resilience significantly, which may be*

apparent due to public crisis propoganda. However, prior researches did not all support the idea and found that efficiency of *crisis learning* may be negative and insignificant. [24][25]It may derive from the fact that some individual were disillusioned by incompetent and rude community leaders, or other citizens' reckless reactions to disobey the quarantine order[26]albeit the leadership took their due responsibility. But in sum , the mediator *crisis learning* might still play a significant role between *crisis learning* and *community resilience*.Thus posited the hypothesis (3) The relation between comunnity leadership and communtiy resilience is quasi-mediated by crisis learing, directed to the *faith of social contract*.(it it not a standard mediation structure) .According to the hypothesis the theory model is listed below .(Figure 1,with the estimand in AMOS 24 to caculate quasi-mediation effect size)

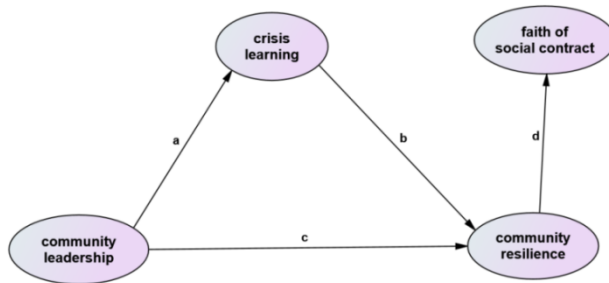


Figure 1 : Theoy Model with estimand  
 direct path= $p.c*p.d$   
 indirect path= $p.a*p.b*p.d$   
 $r=$ indirect path/(direct path +indirect path)

Fig. 1. Theory model with quasi-mediation estimand.

### 3 Research Design and Method

#### 3.1 Data Collection

As a pilot survey 30 people in Shanghai answered online questionnaire which modified by scholars and community officials. The study was further conducted in January of 2024 in Shanghai, Wuhan and Beijing by disseminating online questionnaires. These metropolitans were chosen not only because they were mostly well equipped with ample resources of medication and safety measures, but also because they experienced recurring lockdowns and their stability were deemed as political responsibility of the local community leaders. Data with extreme values, too long or too short respondent time were trimmed. Finally, Shanghai(312),Beijing (313)and Wuhan(316)samples were collected.

### 3.2 Measures and Data Analysis

The questionnaire used in this research was developed by partly applying traditional metrics, and partly resort to priori researches. The variable *community resilience* was adapted from Norris(2008),Susan Cutter(2010) and modified to be accessible to local readers. The metric of *crisis leadership* was adapted according to research of Beilstein(2021)[27]. The metric of *crisis learning* was adapted by Argyris’ organizational learning metric[28]and Ladi Tsarouhas’ research[29].The *faith of social contract* was operationalized as a fictional test constituting of several question items to fathom how people may imagine an enclosed crisis situation when the individuals have to build a set of rules or regulations similar to a social contract. It is to reverse engineer and unearth how people perceive hidden faith of social contract during crisis and deprivation. The design also adapted from scale of psychological contract.[30][31][32] All scales were 5-point Likert scales, the responses ranged from 1(strongly disagree) to 5(Strongly agree).

Major statistical processes like reliability and validity were computed by SPSS25 and Amos 24. The model testing as well as quasi-mediation test were conducted by Amos 24 bootstrap procedure(Bias-corrected confidence intervals 95% and 2000 times sampling).The estimand to calculate the significance of quasi-mediation effects was inserted in Figure 1.

## 4 Results

### 4.1 Evaluation of Measurement Model

According to results calculated by SPSS 25, The correlations between any two variables were significant. Most of the correlation coefficients were ranging between 0.447–0.849 ( $p < 0.01$ ). After trimmed the missing data, the remaining items were provided in Table 1 column 2.

**Table 1.** Reliability and Composite Validity of the Measurement Model (just Shanghai and Beijing Samples)

|                      | Remaining Items                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Cronbach's alpha (Shanghai) | Cronba ch's alpha (Bei-jing) | AVE (Shanghai) | AVE (Bei-jing) | C.R. (Shang hai) | C.R. (Bei-jing) |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------------------------|----------------|----------------|------------------|-----------------|
| Community leadership | <p><b>Q(76)</b> The community leaders are good at intra-crisis period coping with the loss of experts and making good decision.</p> <p><b>Q(67)</b> The community leaders are able to distribute resources and information according to the justice principle.</p> <p><b>Q(69)</b> The community leaders can deal with community conflicts and engage with negotiations even when the outside aid are absent.</p> <p><b>Q(73)</b> I am confident for the regular crisis coping of community leaders.</p> <p><b>Q(77)</b> The community leaders are able to bargain for provisions and privileges for community from higher level government.</p> | 0.893                       | 0.847                        | 0.581          | 0.534          | 0.874            | 0.851           |
| Crisis learning      | <p><b>Q(62)</b> The community have special exhibition areas to retain community memory of crisis coping.</p> <p><b>Q(63)</b> The files coping with daily hazards are categorized and kept carefully .</p> <p><b>Q(64)</b>The community rescue team have the habit of periodically revising their skills and experiences.</p>                                                                                                                                                                                                                                                                                                                     | 0.892                       | 0.861                        | 0.625          | 0.565          | 0.893            | 0.866           |

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |       |       |                       |       |          |       |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-----------------------|-------|----------|-------|
|                          | <p><b>Q(65)</b>The community leaders hold meetings for crisis learning after COVID which attract participation of common citizens.</p> <p><b>Q(66)</b>The community leaders are good at inventing new procedures and techniques to deal with crisis.</p>                                                                                                                                                                                                                                                                                                                               |       |       |                       |       |          |       |
| Community Resilience     | <p><b>Q(5)</b>The community organizations' finances were well regulated during crisis.</p> <p><b>Q(78)</b> The community have special programs to support vulnerable populations.</p> <p><b>Q(61)</b>The community have special maps and files of hazard preventions to signify how to cope with crisis(resources, spaces and waterproof areas).</p> <p><b>Q(59)</b>The community are fully prepared to emergencies of crisis.</p> <p><b>Q(60)</b>The community have preventions of emergencies plans for multiple levels and different kinds of hazards , not just general rules.</p> | 0.86  | 0.872 | 0.562                 | 0.613 | 0.865    | 0.888 |
| Faith of social contract | <p><b>Q(1)</b> will help to build a social contract during crisis which formulate the social order guarantee mutual trust.</p> <p><b>Q(3)</b> I will help to protect the social contract by helping with equity and doing justice according to it.</p> <p><b>Q(8)</b>I believe the social contract since it will sustain cross generation responsibilities.</p>                                                                                                                                                                                                                        | 0.631 | 0.649 | 0.474                 | 0.493 | 0.651    | 0.658 |
| Recommended value        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | >0.6  |       | Better above 0.5 [33] |       | >0.7[34] |       |

Note1: The items are a part of long survey questionnaire including 7 dozens of items. So the number of question items are large. The AVE, CR and Cronbach's alpha were calculated by SPSS 24. AVE: Average Variance Extracted value, C.R.: Composite Reliability

By a CFA test the factor loadings are shown in Table 1, it is only tested by using samples from Beijing and Shanghai for confined length of paper. The Cronbach's alpha for each sub-scales is above the threshold value of 0.6. The CR values for the key variables are largely good. The variable *faith of social contract* has an undesirable AVE values lower than 0.5. Consider that the design of this variable did not adhere to strictly established metrics and other indicators were fine, this flaw is acceptable.

#### 4.2 Evaluation of the Structural Model and Hypothesis Testing

By conducting the test of samples of Shanghai, Beijing and Wuhan in theory model by AMOS 24, the hypothesis 1 and hypothesis 2 were tested .To test the quasi-mediation effect of *crisis learning*, an estimand was designed in Amos 24 and ran in the process, (estimand in Figure 1.)The quasi-mediations were tested as thus: if the lower and higher *BOOT CI* values did not include zero then the quasi-mediation effect were reckoned as significant,otherwise insignificant. All the standardized paths coefficients of the three cities were in Table 3 and hypothesis testing were in Table 2.

According to Table 3 all the models were qualified for good fit. Hypothesis 1 was not fully supported since only Shanghai sample had significant path coefficient of *community leadership* to *communitiy resilience*.( $\beta=0.503^{***}$ ).Hypothesis 2 was fully supported by all three samples on  $p<0.001$  level. ( $\beta^{shanghai}=0.505^{***}$ ,  $\beta^{Beijing}=0.69^{***}$ ,  $\beta^{Wuhan}=0.574^{***}$ ).Hypothesis 3 was not fully supported since only Shanghai sample supported the quasi-mediation effect(indirect path=0.171\*\*,direct path = 0.162\*\*,  $r=0.485^{**}$ ).Fo rBeijing sample the direct effect was insignificant and the indirect effect was significant.(indirect=0.323\*\*\*, direct= 0.091 (p=0.170), total= 0.414\*\*.  $r=0.779^{**}$ )In Wuhan sample the direct effect was insignificant and the indirect effect was significant (indirect=0.323\*\*\*, direct=0.081(p=0.215), total=0.404\*\*\*,  $r=0.8^{***}$ ). Consider that the total effect is significant(total=0.404\*\*\*)they might be both suppressed effect. These will be further explored in Section 5.

**Table 2.** Standardized Path Coefficients of The Three Cities

|                                                                         | Shanghai Sample                                                   | Beijing Sample                                                          | Wuhan Sample                                                            |
|-------------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------|
| <b>Hypothesis 1</b><br>community leadership→community resilience        | 0.503***                                                          | 0.2(p=0.072)                                                            | 0.185(p=0.137)                                                          |
| <b>Hypothesis 2</b><br>community resilience→faith of social contract    | 0.505***                                                          | 0.69***                                                                 | 0.574***                                                                |
| <b>Hypothesis 3</b><br>quasi-mediation effect of <i>crisis learning</i> | Indirect=0.158**<br>direct=0.175***<br>total=0.333*** , r=0.475** | Indirect=0.323***<br>direct=0.091(p=0.170)<br>total=0.414** , r=0.779** | Indirect=0.323***<br>direct=0.081(p=0.215)<br>total=0.404*** , r=0.8*** |
| <b>Model fit</b><br>(recommended value)                                 | CM/DF=1.66                                                        | CM/DF=1.531                                                             | CM/DF=1.602                                                             |
| $1 < \chi^2/df < 3$ ; NFI, RFI, TLI, CFI > 0.9                          | NFI=0.946, RFI=0.926                                              | NFI=0.936, RFI=0.926                                                    | NFI=0.921, RFI=0.908                                                    |
| RMSEA < 0.08 (Source: [35][36])                                         | TLI=0.969, CFI=0.973                                              | TLI=0.973, CFI=0.971                                                    | TLI=0.963, CFI=0.969                                                    |
|                                                                         | RMSEA=0.046                                                       | RMSEA=0.041                                                             | RMSEA=0.044                                                             |

Source: Author’s calculation using Amos 24. \*\*\*P<0.001, \*\*p<0.01, \*p<0.5.

**Table 3.** Standardized Paths Coefficients of the Three Cities

|                                                  | Shanghai sample | Beijing sample | Wuhan sample   |
|--------------------------------------------------|-----------------|----------------|----------------|
| Community leadership -> crisis learning          | 0.88***         | 0.892***       | 0.89***        |
| Crisis learning -> community resilience          | 0.519***        | 0.78***        | 0.83***        |
| Community leadership ->community resilience      | 0.505***        | 0.2(P=0.072)   | 0.185(P=0.137) |
| Community resilience -> faith of social contract | 0.505***        | 0.69***        | 0.57***        |

Source: Author’s calculation using Amos 24. \*\*\*P<0.001, \*\*p<0.01, \*p<0.5

## 5 Exploratory Stuty and the Discussions

A exploratory stuty was conducted to find out whether hypothesis 3 established when Wuhan and Beijing samples should be considered as suppression effect. The researcher developed a model from simple correlation between *community leadership* to *community resilience* (first step), and then add the variable *crisis learning* to this model in the second step. (Figure 2 and Figure 3), and the standardized path coefficients of the models were in Table 3. A comparison between same path of Figure 2 to Figure 3 shown that the path coefficient of *community leadership* to *community resilience* started from being significant to insignificant and from high values to rather low values (Wuhan sample, from  $\beta=0.9***$  to  $\beta=0.07$  ( $p= 0.607$ ) and Beijing sample from  $\beta=0.89***$  to  $\beta=0.19$  ( $p= 0.072$ )(Table 4). It can be infered that, for the sample of Wuhan and Beijing, these common transition stemed from the second step when adding the variable *crisis learning* to the simple correlation effect between *community leadership* to *community resilience*.

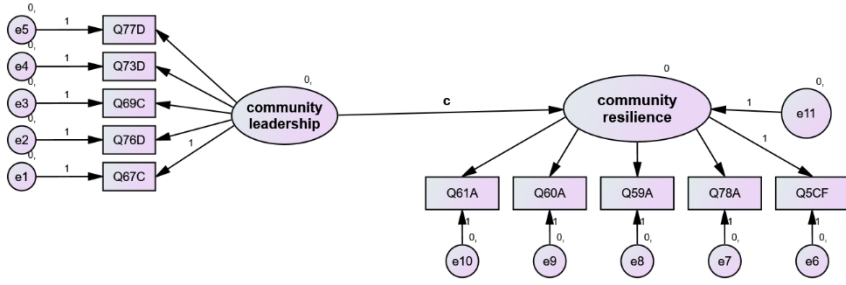


Fig. 2. Simple Correlation Model (first step).

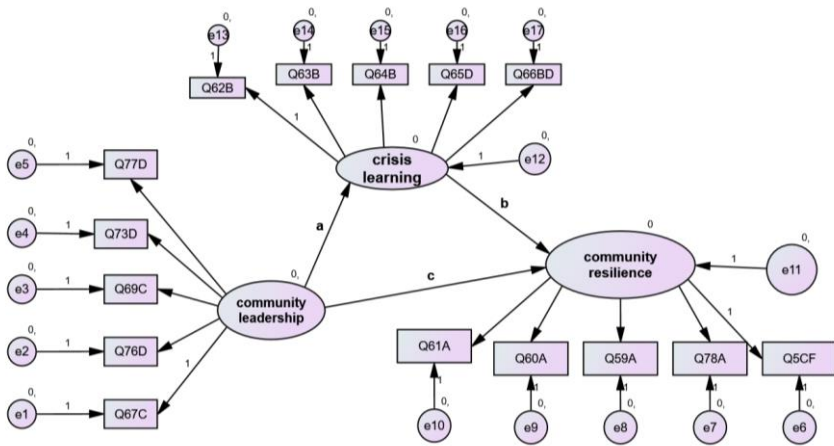


Fig. 3. Simple Mediation Model (the second step).

Table 4. From Simple Correlation to Simple Mediation (Wuhan and Beijing samples)

|                                                                                         | Path coefficients of <i>community leadership</i> to <i>community resilience</i> (Beijing sample)                                        | Path coefficients of <i>community leadership</i> to <i>community resilience</i> (Wuhan sample)                                       |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| First Step(Figure 2)<br>Simple correlation model                                        | $\beta=0.89^{***}$                                                                                                                      | $\beta=0.9^{***}$                                                                                                                    |
| Second Step(Figure 3)<br>Add <i>crisis learning</i> to the simple correlation model     | $\beta=0.19$ (p=0.072)<br>direct=0.23 (p=0.192),<br>Indirect=0.828 <sup>***</sup><br>total=1.058 <sup>***</sup> ,r=0.783 <sup>***</sup> | $\beta=0.07$ (p=0.607 )<br>direct=0.078(p=0.607),Indirect=0.946 <sup>***</sup><br>total=1.024 <sup>***</sup> ,r=0.924 <sup>***</sup> |
| Third Step(Figure 1)<br>Add <i>faith of social contract</i> to simple correlation model | $\beta=0.2$ (p=0.072)<br>Indirect=0.323 <sup>***</sup> ,direct=0.091 (p=0.170)<br>total=0.414 <sup>**</sup> ,r=0.779 <sup>**</sup>      | $\beta=0.185$ (p=0.137)<br>Indirect=0.323 <sup>***</sup> ,direct=0.081 (p=0.215)<br>total=0.404 <sup>***</sup> ,r=0.8 <sup>***</sup> |

Source: Author's calculation using Amos 24. \*\*\*P<0.001,\*\*p<0.01,\*p<0.5



These statistical evidences may fit for the situation during COVID-19 lock down period. Wuhan was among the earliest and had the most dramatic and traumatic experience during the pandemic among the three sample cities. A contrast between Wuhan and Beijing seemed mirror each other in terms of total effects as well as  $r$  value ( $r = \text{indirect path} / (\text{direct path} + \text{indirect path})$ ), and both of them were proved to be suppression effect. It may be indicating that citizens recognized a considerable degree of *crisis learning* in correlation with *community resilience* but in common periods before COVID-19 the community resilience did not benefit much from the leadership.

In comparison with above two cities, the Shanghai sample had all the path coefficients being significant and the quasi-mediation effect is  $r = 0.475$ , and the effect size of direct effect were almost the same with indirect effect (0.158 / 0.175). (Table 2, Column 2) It may indicate that Shanghai citizens recognized that aside from *crisis learning* as temporarily participation, *community leadership* also devoted to considerable degree of *community resilience*. It was not to infer that Wuhan and Beijing community leaders were incompetent. It cannot rule out the possibilities that (1) Community leaders from Beijing and Wuhan were not so good at making the value of their contribution visible but did the work anonymously daily so that citizens were not so aware of them. (2) Due to aversion of responsibilities to admit there might be other loopholes in crisis, since to govern for the city confronting the first wave of COVID-19, community leaders were so afraid of committing mistakes, that they tend to deemphasize their contribution and attributed the merit to social organizations as well as other agencies in mitigation of crisis, which also might devoted to the suppression effect. They might also reckon that they were learned as improvisation, rather than prepared in advance.

As for the variable *faith of social contract*, no matter it was suppression effect or simple mediation effect, the correlation were as follows. Under circumstances that *community leadership* enhance by 1 degree then the total effect of theory model will cause citizens' *faith of social contract* enhance about 0.33 (Shanghai), or 0.414 (Beijing) or 0.44 (Wuhan) (Table 4). The same goes with *community resilience*, whenever it enhances by 1 degree then the *faith of social contract* will enhance in the same direction to 0.5 (Shanghai) or 0.692 (Beijing) or 0.573 (Wuhan). These findings of the three metropolitan cities all led to the conclusion that *community resilience* were positively correlated with *faith of social contract*. Yet Shanghai citizens were 50% sensitive, yet Beijing citizens were most sensitive (69.2%). Being the earliest to confront pandemic in the whole country Wuhan citizens were not the most sensitive to enhancement of *faith of social contract*. Several reasons may lead to this.

Among the three cities, Wuhan was the city that attracted most attention and mitigation resources for *paired assistance policy* across provinces of whole China, which may reasonably lead to a high estimation of citizens' *faith of social contract*. However, consider that at the forefront of the Pandemic and the atrocity to witness fast sudden deaths of the first wave was so shock for citizens of Wuhan, so the enhancement of *faith of social contract* was not so conspicuous because it had been counteracted by the shock. As for the cases of Beijing and Shanghai, they were both cities that could learn from cities affected before so they prepared for the propaganda and longer time to prepare for the pandemic, which might lead to a certain high level of

*faith of social contract* caused by community resilience. Lest that as the borrower rather than the lend out actor of mitigation resources Shanghai citizens would feel more at ease of their own resources to spill out and being robust, rather than Wuhan citizens who equally felt the “visible robustness of social contract“ but as a borrower of resources, which might led to the result that Wuhan citizens held a medium level of enhancement of *faith of social contract*.

Several reasons may explain why Shanghai sample was the lowest for *faith of social contract*. The city reacted quickly in labour market when the wave of COVID-19 stroke and fired a mount of low waged workers but sustain the logistics during COVID-19 by a slim personnel of them in high risks, which caused a certain amount of negative news of delivery workers and those who did not have local resident identities. This may cause a decrease of *faith of social contract*. This was not indicating that Beijing did not issue similar policies but the regulation of online information during COVID-19 was much more intense, which might lead to the result that Beijing citizens’ *faith of social contract* were significantly correlated with *community resilience with high coefficient*, though they were just medium level positively perceived their *community leadership*. Wuhan citizens’ *faith of social contract* were of medium level correlated with *community resilience*, though they perceived their *community leadership in positive manner*. Shanghai sample had the two lowest correlation effect sizes among them, which might be indicating that citizens’ prepared *crisis learning* well in daily lives since they realized that to keep the *faith of social contract* it might be best to resort to oneself or families. They did not perceive very highly of *community leadership*, neither they perceived highly of *faith of social contract* compared to other two samples.

## 6 Further Discussions

This study contributed to the disaster resilience literature in two aspects. (1) It coined a new variable to investigate post crisis social mentality in correlation with *community resilience*. It placed a broader perspective of post crisis social commitment rather than merely researching the perspective of psychological irritations or inertia. (2) It emphasized the importance of *crisis learning* which shown impressive effect size compared to perceived *community leadership*. It may need longitudinal research to fathom the possibility that Shanghai citizen do not hold so high for their community leadership so they prepared substantially for crisis learning, and that their enhancement of *faith of social contract* also being low, which may take further examinations to find out whether they are more active in crisis learning in daily lives.

This research was mainly limited by two aspects. (1) It is an exploratory research for it coined a variable *faith of social contract* and tried to measure it. The idea may be more suitable in western world but in oriental social background it needed more explanations so the questionnaire designed introduction to inform respondents what it was. But one factor loading was less than satisfactory which indicated a weakness in external validity. (2) It can be improved by samples with diversified combination of age groups enduring similar crisis. i.e. those who went through 2008 SARS pandemic and find out why the path between *community leadership* and *community resilience* sup-

pressed by crisis learning. (3) The external validity of this research may be enhanced by larger samples.

## 7 Conclusion

This research paper employed the SEM analysis to investigate the perception of community resilience of citizens in like Shanghai ,Beijing and Wuhan ,it proved significant positive correlations between *community leadership* and *community resilience* in Shanghai, also the correlation were significantly mediated by *crisis learning*, and finally community resilience positively correlated with faith of social contract. However, both Wuhan and Beijing samples had insignificant correlations between *community leadership* and *community resilience* when *crisis learning* mediating between them, yet the suppressed effects of *crisis learning* in these cities still did not bother to cause positive correlations between *community resilience* and *faith of social contract*.

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