Factors Influencing the Choice of Passive Income Using the Ism Approach

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ABSTRACT: Income refers to the money earned by an individual or a business through various sources such as employment, investments, rental income, and profits from a business. It is an important aspect of personal finance and a key measure of economic well-being. Income can be used for various purposes, such as covering daily expenses, paying off debts, investing for the future, and building wealth. Managing income effectively and making wise financial decisions are important to ensure financial stability and growth. Passive income can be an important tool in achieving financial freedom and independence Through this paper, we are finding factors like age, Income, efforts given, period, etc. that affect your choice of passive income. With data collected concerning passive income the interconnection among the impactful factors has been analyzed using Interpretive Structure Modelling (ISM). With the current generation dwelling more and more on a secondary source of income, this study may help you understand the overall process of generating a passive income strategy that might help in earning more income.

KEYWORDS: Passive income; ISM; Decision making; Income; Wealth

I.   INTRODUCTION:

There are numerous means of earning income, varying with effort, time, and investment required, the two main streams being active and passive income. Active income is defined as salary earned from specific duties or services rendered according to an agreed task, within a specified time frame. Most commonly, we describe passive income as 'making money while you sleep', but it is more than that. Passive income refers to income generated from a source other than your employer or contractor, with minimal effort. This includes sources like rental income, content creation, affiliate marketing, etc. The main difference between passive and active income is that we must put in the effort to earn active income.

(Chen, 2023) says that passive income allows us to obtain an early retirement, support a nomadic lifestyle and increase our net worth. It not only gives greater flexibility in our work life but also gives us financial freedom, so we can see why it is an appealing source to many. There are numerous ways that we can earn, so we need to evaluate the most optimum way to utilize our resources effectively and efficiently, to achieve our long-term and short-term goals in the least possible time with the least possible effort.

Some of the simplest, most accessible ways to make money from passive income include:

1. **Rental income:** Rent out a garage, room, or, if you have it, a house or apartment. This can be a short-term or longer-term arrangement.
2. **Spread knowledge:** There is a chance that there are people out there who will pay for the knowledge and expertise you've acquired. You could think about creating an online course or writing an e-book. There is money to be made, provided you have something good to share and a decent market strategy. An alternative is to start a YouTube channel.
3. **Sell goods online:** Thanks to online marketplaces such as eBay, it is relatively easy to sell stuff to people all over the country or globe. That could be anything from things sitting in your attic to buying items when they are on sale and then selling them on for closer to their retail value.
4. **Sell photos:** The internet provides all kinds of opportunities to make passive income. Another option is to sell the rights to the photos you have taken to other people via a specialist platform such as Getty Images, Alamy, or Shutterstock.
5. **Peer-to-peer lending:** With peer-to-peer (P2P) lending, it is possible to operate like a financial institution, making personal loans through a third-party intermediary to other individuals and collecting interest payments.

6. **Invest in income stocks:** Many well-established companies on the stock market pay their shareholders a regular cash payment known as a dividend. You can reinvest that money into the stock or withdraw it as income and use it as you wish.
7. **Park your money in a certificate of deposit or savings account:** It is possible to open a bank account that pays interest on the money credited. The rate of return usually depends on interest rates in the broader economy, and how long the bank is allowed to hold the funds before you can retrieve them without paying a penalty.

With increasing digitalization and as an effect of covid, there is an upsurge in the number of people looking for flexibility in their work and looking for alternate sources of income, in addition to or in replacement of their initial active income. In this paper, we aim to find the deciding factors which contribute to the decision of source of passive income. We chose the following as our factors:

1. **Income**- refers to the money someone gets in exchange for their labour or products.
   It depends on your income as to what kind of passive income you might opt for. If you have a high income, you might choose a long-term passive income like rental income whereas if you want income quicker you might go for affiliate marketing or freelancing.
2. **Expenses**- An expense is the cost of operations that a company incurs to generate revenue. It is simply defined as the cost one is required to spend on obtaining something.
   You might want to make passive income if your expenses are greater and your income is low.
3. **Age**- Age is the length of time that a person has lived or a thing has existed.
   This is a factor as at a young age, you have very little income and want to follow your passion so passive income is a way to do so. At an older age, you want to save money or utilize it judiciously and for that, you can invest in stocks or get rental income.
4. **Time period (till return is generated)**- The length of time during which an activity occurs or a condition remains. It may be measured either in seconds or in millions of years, depending upon the nature of the activity of the condition being considered.
   It depends on how quickly you want to earn the income and according to that, you will choose the source of passive income. Some passive income streams require more time and effort than others. For example, starting a blog or creating an online course may require a significant amount of time upfront to create content, while investing in dividend-paying stocks may require less ongoing effort.
5. **Involvement (efforts required)**- The fact or condition of being involved with or participating in something.
   If you are working and earning already, you might not have time to give the effort to make a passive income and hence you might choose something like investing, a college student has a lot of time and might choose something they can give their time to like content creation.
6. **Purpose**- Purpose is the reason for which something is done or created or for which something exists. It is what motivates you.
   Is it for more money or for following your passion etc? The long-term financial goals of an individual can also influence their choice of passive income streams. For example, someone who is looking to build long-term wealth may be more inclined to invest in real estate, while someone who is looking for supplemental income may be more interested in dividend-paying stocks.
7. **Risk appetite**- Risk appetite is the level of risk that an organization is prepared to accept in pursuit of its objectives before action is deemed necessary to reduce the risk.

   Everyone has a different risk appetite. People might prefer risk according to their needs and purpose. Some passive income streams are riskier than others, such as investing in stocks versus investing in real estate. Risk-tolerant individuals may be more inclined to choose higher-risk passive income streams for the potential of higher returns.
8. **Rate of return**- In finance, return is a profit on an investment.
   People can choose what kind of passive income they want based on the rate of return. E.g., they want higher returns and that too in a short time or long time, etc.
9. **Stability**- The quality, state, or degree of being stable.
   It depends on how stable you want to be with your passive income.
10. **Expertise/ knowledge-** Expertise is an elite, peak, or exceptionally high level of performance on a particular task or within a given domain. One who achieves this status is called an expert. Knowledge is facts, information, and skills acquired through experience or education.

If you have the knowledge and expertise then you can earn more and you can constantly learn and earn and grow.

Section 2 talks about the various literature reviews that used ISM Approach which helped us gain knowledge and show it in written format. Section 3 is the method that we followed in our research. It lays down the steps for the ISM Approach which aims to provide valid results for the research. We have also attached tables to help with the explanation. Section 4 is the findings of the research we conducted. We have listed what the various levels mean and what is the relation between the factors and this will give you a better understanding of which passive income will suit you. Section 5 is the managerial implications which are based on the results of the research. We have mentioned which passive income will be a better option according to your age. Section 6 is the conclusion of this research paper. Section 7 lists the limitations of the ISM approach which can be filled in the next research.

II. LITERATURE REVIEW:

We reviewed a few papers on the ISM approach to get a better understanding about the method and the result.

(Attri, Dev, & Sharma, 2013) gave an overview of the ISM approach. In this technique, a set of different directly and indirectly related elements are structured into a comprehensive systematic model. The model so formed portrays the structure of a complex issue or problem in a carefully designed pattern implying graphics as well as words. This research paper talks about the steps, factors, advantages, and limitations of the ISM approach.

(Rafiq, et al., 2021) talks about how Covid-19 has impacted lots of businesses. This study investigates the emerging management practices that will enable the renewable energy sector to fulfill the current demands of the market, especially after the outbreak of the Covid-19 pandemic. This research deployed a qualitative research methodology that is grounded in the interpretivism research paradigm. Interpretive structural modeling (ISM) was applied due to the extent of its logical thinking, and its ability to address complex issues and disseminate results precisely.

(Singhal, Tripathy, Jena, Nayak, & Dash, 2018) identify and analyze the fourteen factors which are acting as obstacles in the development of remanufacturing activities in India. The result of this research shows that unclear government policies and regulations, negligence of the environment, and lack of management foresight are the main hurdles to remanufacturing practices in India. This research implies that decision-makers must frame clear policies and regulations which encourage industries and consumers to participate in remanufacturing activities.

(Arun, Pharande, & Saini, 2017) discovered twenty-nine factors responsible for heat transfer in the recovery of heat from hot dyeing waste slurry and its Interpretive Structural Modeling (ISM) have been developed. From ISM Approach, the mass flow rate of water, water, the mass flow rate of slurry/MFR slurry, the temperature of slurry, and Mass to Liquor Ratio were selected for further experimentation of heat recovery.

(Kusrini, Safitri, & Helia, 2019) wrote a paper about Small and Medium Enterprises (SMEs). SMEs and MSMEs are known to be one of the most important parts of the country's economy in terms of creating new jobs for the community. This study aims to determine the key factors by classifying and structurally modelling the factors based on the level of the affecting elements of an SME's success. This research found 24 success factors that were divided into 13 levels and categorized into 4 sectors including autonomous, dependent, linkage, and independent sectors. The sub-elements or key factors that influence the success of SMEs include motivation and experience, entrepreneurial spirit and leadership, and formal education level.

III. RESEARCH METHODOLOGY:

Passive income is a way to reduce your stress and tension about the future. You can generate passive income and someday think of making it active. Mostly passive income comes from something you love doing and hence it gives you the motivation to follow your passion. Knowing what makes people choose the source of passive income, we can do the same and start earning passive income. We chose to collect primary data by making a questionnaire and distributing it to 100 people belonging to various age groups. The steps to get the results using the ISM approach are described as follows:

Step 1: Structural Self-Interaction Matrix (SSIM):

(Marut Bisht, 2019) ISM methodology suggests the use of expert opinions based on various management techniques such as brainstorming, nominal group technique, etc. in developing the contextual relationship among the variables. The factors are listed below in Table 1.

Table 1: Influencing factors of choice of passive income

Sr. No.	Factors	Sr. No.	Factors
C1	Income	C2	Expenses
C3	Age	C4	Time period (Till return is generated)
C5	Involvement (Efforts required)	C6	Purpose
C7	Risk appetite	C8	Rate of return
C9	Stability	C10	Expertise/ knowledge

Step 2: Questionnaire designing:
A questionnaire was designed in a pair-wise comparison pattern. Where the responder fills the questionnaire out of the four available options (VAXO):
V= (A) influences (B) but (B) doesn't influence (A)
A= (B) influences (A) but (A) doesn't influence (B)
X= Both (A) and (B) influence each other
O= Neither of them influence each other in given possible ways

Step 3: Reachability Matrix:
The questionnaire result is then cumulated and the SSIM table is formed as shown below in table 2. The next step in the ISM approach is to develop an initial reachability matrix from the SSIM table.

Table 2: SSIM

Factors	Income	Expenses	Age	Time period	Involvement	Purpose	Risk appetite	Rate of return	Stability	Expertise/ knowledge
Income	1	X	A	A	A	A	X	A	V	A
Expenses		1	A	V	V	V	X	A	X	A
Age			1	V	V	V	V	V	O	O
Time period				1	A	X	O	X	A	A
Involvement					1	A	A	V	A	A
Purpose						1	V	V	A	O
Risk appetite							1	V	A	O
Rate of return								1	V	A
Stability									1	O
Expertise/ knowledge										1

Step 4: Converting SSIM to IRM:

Table 3 represents the SSIM to IRM by using the mentioned rules.
For this, SSIM is converted into the initial reachability matrix by substituting the four symbols (i.e., V, A, X, or O) of SSIM by 1s or 0s in the initial reachability matrix. The rules for this substitution are as follows:

(a) If the (i, j) entry in the SSIM is V, then the (i, j) entry in the reachability matrix becomes 1 and the (j, i) entry becomes 0.
(b) If the (i, j) entry in the SSIM is A, then the (i, j) entry in the matrix becomes 0 and the (j, i) entry becomes 1.
(c) If the (i, j) entry in the SSIM is X, then the (i, j) entry in the matrix becomes 1 and the (j, i) entry also becomes 1.
(d) If the (i, j) entry in the SSIM is O, then the (i, j) entry in the matrix becomes 0 and the (j, i) entry also becomes 0.

Table 3: Initial reachability Matrix (SSIM to IRM)

Factors	Income	Expenses	Age	Time period	Involvement	Purpose	Risk appetite	Rate of return	Stability	Expertise/ knowledge
Income	1	1	0	0	0	0	1	0	1	0
Expenses	1	1	0	1	1	1	1	0	1	0
Age	1	1	1	1	1	1	1	1	0	0
Time period	1	0	0	1	0	1	0	1	0	0
Involvement	1	0	0	1	1	0	0	1	0	0
Purpose	1	0	0	1	1	1	1	1	0	0
Risk appetite	1	1	0	0	1	0	1	1	0	0
Rate of return	1	1	0	1	0	0	0	1	1	0
Stability	0	1	0	1	1	1	1	0	1	0
Expertise/ knowledge	1	1	0	1	1	0	0	1	0	1

Step 5: Final Reachability Matrix:
Figure 4 represents the interrelationship among 10 factors of the source of passive income. Highlighted 1s (in light green) is because of the transitivity law. We also get attributes in Partitioning RM based on their behaviour. These sets are classified into: The reachability set, Antecedent se, and Intersection set.

Table 4. Final reachability matrix

A1	A2	A3	A4	A5	A6	A7	A8	A9	A10
1	1	0	*1*	*1*	*1*	1	*1*	1	0
1	1	0	1	1	1	1	*1*	1	0
1	1	1	1	1	1	1	1	*1*	0
1	*1*	0	1	*1*	1	*1*	1	*1*	0
1	*1*	0	1	1	*1*	*1*	1	*1*	0
1	*1*	0	1	1	1	1	1	*1*	0
1	1	0	*1*	1	*1*	1	1	*1*	0
1	1	0	1	*1*	*1*	*1*	1	1	0
1	1	0	1	1	1	1	*1*	1	0
1	1	0	1	1	*1*	*1*	1	*1*	1

Table 5 is the output file which shows the level column having value "1" if the attributes have equal reachability and intersection set in that iteration. We can see that there are two iterations in the file. Attributes selected after each iteration has value 1 in the level column with green background. Level partitioning is done in order to classify the elements into different levels of the ISM structure. For this purpose, two sets are associated with each element Ei of the system: a Reachability Set (Ri), which is a set of all elements that can be reached from the element Ei, and an Antecedent Set (Ai), which is a set of all elements that element Ei can be reached by.

Table 5. Level partition of each iteration

Variable_Names	Reachability_Set	Antecedents_Set	Intersection_Set	Level
A1	A1 A2 A4 A5 A6 A7 A8 A9	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	A1 A2 A4 A5 A6 A7 A8 A9	*1*
A2	A1 A2 A4 A5 A6 A7 A8 A9	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	A1 A2 A4 A5 A6 A7 A8 A9	*1*
A3	A1 A2 A3 A4 A5 A6 A7 A8 A9	A3	A3	0
A4	A1 A2 A4 A5 A6 A7 A8 A9	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	A1 A2 A4 A5 A6 A7 A8 A9	*1*
A5	A1 A2 A4 A5 A6 A7 A8 A9	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	A1 A2 A4 A5 A6 A7 A8 A9	*1*
A6	A1 A2 A4 A5 A6 A7 A8 A9	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	A1 A2 A4 A5 A6 A7 A8 A9	*1*
A7	A1 A2 A4 A5 A6 A7 A8 A9	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	A1 A2 A4 A5 A6 A7 A8 A9	*1*
A8	A1 A2 A4 A5 A6 A7 A8 A9	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	A1 A2 A4 A5 A6 A7 A8 A9	*1*
A9	A1 A2 A4 A5 A6 A7 A8 A9	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	A1 A2 A4 A5 A6 A7 A8 A9	*1*
A10	A1 A2 A4 A5 A6 A7 A8 A9 A10	A10	A10	0
Variable_Names	Reachability_Set	Antecedents_Set	Intersection_Set	Level
A3	A3	A3	A3	*1*
A10	A10	A10	A10	*1*

IV.   FINDINGS:

According to table 5, we can see that the variables A1 (income), A2 (expenses), A4 (time period), A5 (involvement), A6 (purpose), A7 (risk appetite), A8 (rate of return), A9 (stability) come in one level and A3 (age) and A10 (expertise/ knowledge) are at one level. This means that age and expertise variables influence all the other variables. Your age affects your income, expenses, time period till you generate returns, involvement, purpose, risk appetite, rate of return, and stability. Similarly, your expertise and knowledge influence income, expenses, time period till you generate returns, involvement, purpose, risk appetite, rate of return, and stability.
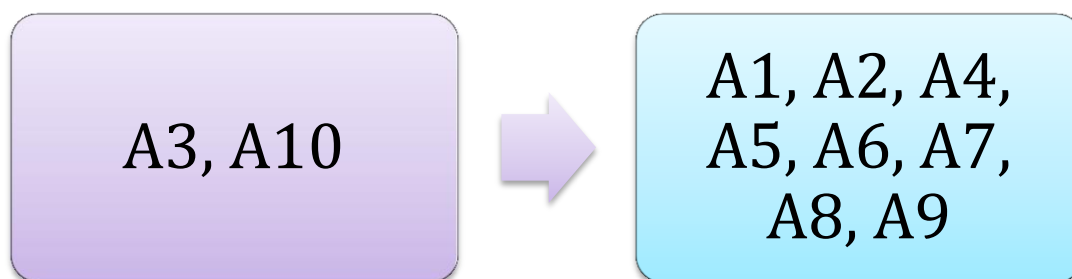

Fig 1. Pictorial view of factors influencing the source of passive income

You can see the pictorial understanding of the results in figure 1. We can see that there are 2 levels and A3 and A10 are the most influential factors in choosing the source of passive income. Age is important as your purpose might vary, risk appetite might be higher, income, and time period stability might be lower whereas expenses, involvement, and return might be higher. Expertise and knowledge are influential as your income and expenses depend on them. If you have more knowledge in your field, you may have more income and lesser expenses.

V.   MANAGERIAL IMPLICATIONS:

ISM can be applied at a high level of abstraction, such as that required for long-term planning. It can also be used to process and structure details related to a problem or activity such as process design, career planning, strategic planning, engineering problems, product design, process re-engineering, complex technical problems, financial decision-making, human resources, competitive analysis, and electronic commerce on a more concrete level.

Through this study, we are able to identify the factors affecting the choice of passive income which will help you in making more side income.
From the above findings, the following can be done by you:
1.   In your 20s:
a.   Investing in stocks or index funds
b.   Peer-to-peer lending
c.   Rental properties
d.   Investing in real estate crowdfunding
e.   Creating digital products
f.   Starting a blog or YouTube channel
2.   In your 30s:
a.   Rental properties (as you may have saved up more for a down payment)
b.   Creating and selling digital products
c.   Investing in dividend-paying stocks and ETFs
d.   Building a passive income stream through affiliate marketing
3.   In your 40s:
a.   Rental properties (as you may have more experience in real estate investing)
b.   Creating and selling online courses or membership sites
c.   Investing in real estate investment trusts (REITs)
d.   Building a portfolio of dividend-paying stocks, bonds, and other income-generating assets
4.   In your 50s and beyond:
a.   Rental properties (as you may have more equity and experience)
b.   Investing in annuities and other retirement income products
c.   Creating and selling intellectual property such as patents or licensing agreements
d.   Investing in high-yield dividend stocks and bonds to generate income for retirement

It's important to keep in mind that passive income requires effort and time upfront, and may not provide immediate returns. What you choose to depends on the factors discussed above and should be taken into consideration before starting your passive income journey.

VI.   CONCLUSION:

Passive income refers to income that is earned with little or no effort on the part of the recipient. It can be an attractive source of income for those who want to supplement their regular income or achieve financial independence. Passive income streams can come in many forms, including rental income from real estate, dividend income from stocks, income from peer-to-peer lending, or income from creating and selling digital products such as E-books or online courses. Through this paper, we wanted to understand what makes people of different categories like age and gender affect the choice of source of passive income using ISM. We found out that age and expertise are the most influential factors. According to our survey, 48 people were in the age group of 20-30 and the majority of the people think that age is the most important factor along with expertise. While passive income can be a great way to generate additional income, it's important to remember that it's not entirely "passive" and often requires upfront effort and ongoing maintenance. It's also important to carefully evaluate any potential passive income stream before investing time or money into it.

Limitations of the study: Like all research, this study also has a few limitations that need consideration for future research. The first limitation of the study is related to methodology- The ISM model reduces complex systems into a simple hierarchical structure, which may lead to oversimplification and loss of critical information. Another limitation of the study involves the sample size: the narrow sample of the study affects the generalizability of the concept such that in the future, the sample size of the study should be increased to obtain the desired data. It would also be beneficial to gather data from all age groups. Limitation to Hierarchical Structures: ISM is designed to model hierarchical relationships between the elements of a system. Still, it may

not be suitable for systems with complex, non-hierarchical relationships or systems with a large number of interconnected elements.

REFERENCES:

1. Arun, K. R., Pharande, V. A., & Saini, D. R. (2017). Interpretive Structural Modeling (ISM) for Recovery. *International Journal of Theoretical and Applied Mechanics, 12*(1), 83-92. From https://www.ripublication.com/ijtam17/ijtamv12n1_08.pdf

2. Attri, R., Dev, N., & Sharma, V. (2013, February 6). Interpretive Structural Modelling (ISM) approach: An Overview. *Res. J. Management Sci., 2*((2)), 3-8. From http://www.isca.in/IJMS/Archive/v2/i2/2.ISCA-RJMS-2012-054.php

3. Chen, J. (2023, February 15). *Investing Basics, Investing, Investopedia*. From Investopedia: https://www.investopedia.com/terms/p/passiveincome.asp

4. Kaur, M., Kher, P., Khandelwal, A., Paul, S., & Nagdeve, S. (2022, February 5). A study on the domain of passive income strategies in architecture and how the confluence of entrepreneurship and architecture can transform the design practice. *International Journal of Students' Research in Technology & Management, 10*, 1-14. doi:10.18510/ijsrtm.2022.1011

5. Kusrini, E., Safitri, W., & Helia, V. (2019). Identify Key Success Factors Using Interpretive Structural Modeling (ISM) : A Case Study in Small and Medium Enterprise in Indonesia. *IOP Conference Series: Materials Science and Engineering*, 27-28.

6. Marut Bisht, M. S. (2019). *Understanding Popularity Dynamics for YouTube Videos: An Interpretive Structural Modelling based Approach.* Mumbai.

7. Rafiq, M., Naz, S., Martins, J. M., Mata, M. N., Mata, P. N., & Maqbool, S. (2021). A Study on Emerging Management Practices of Renewable Energy Companies after the Outbreak of Covid-19: Using an Interpretive Structural Modeling (ISM) Approach. *Sustainability, 13*(6), 3420. From https://doi.org/10.3390/su13063420

8. Singhal, D., Tripathy, S., Jena, S. K., Nayak, K. K., & Dash, A. (2018). Interpretive structural modelling (ISM) of obstacles hindering the remanufacturing practices in India. *Procedia Manufacturing, 20*, 452-457. From https://doi.org/10.1016/j.promfg.2018.02.066